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R. F. JOHNSTONE, EDITOR. S. B. NOBLE, Hort. Editor.

THE MICHIGAN FARMER.

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CONTENTS.

The Construction of Drains.

The fall is the season when draining can be carried on with most advantage to the farmer. But at the same time, unless it is a piece of well known, and thoroughly examined ground, he should not undertake so expensive a process, until he has become intimately acquainted with the nature of the soil, the occasion of its wetness, the location of any springs which may be in it, and all its qualities, whether of natural composition or of locality. On a knowledge of the nature of the soil, depends the frequency of the drains and their distance from each other. On a knowledge of the locality will depend the position of the drains. Hence the importance of an intimate acquaintance with the whole extent of the land or field, which it is determined to drain. The first point, after having determined from the position of the land where the outfall of water should be, is to settle the lines of main drains, and which one is of the most importance to the field, and should be first constructed. It will also be proper to settle how much drain can be completed during the season; or if it is determined to drain just so much land, then it will become necessary to settle the amount of work to be done, the number of tiles, or other material it may be necessary to provide, and the number of laborers it will require. In giving a description of the modes of cutting drains, with illustrations of the tools necessary to facilitate the work, we are affording our readers an opportunity of making their own calculations.

The line of the drain being marked out, the sod being lined out to a width of about three feet, it should be cut and laid on that side of the ditch which will not be occupied with the earth to be thrown out. If the ditch is for a main drain, and its depth is 3½ to 4 feet, the sides should be cut narrowing as the ditcher goes down, until at the bottom the width is but 12 to 15 inches, or not more than sufficient for the workman to labor in with ease. Figure 1 will give a good idea of the shape of the drain, where horse shoe tile is used. If tiles are not

to be had, and it is necessary to use stone or plank, figure 2 will show what the shape of the drain should be, and also how the stones and plank should be placed in the ditch.

Now the great art of digging drains, consists in the workman not making any false or useless movements. Each stroke of his pick, if the subsoil is very stiff and be has to use such an implement, should loosen the soil in depth. Every time the spade goes down, it should lift out of the ditch only such earth as may be necessary to facilitate the laying of the tile. In cutting the earth, the sides of the drain are formed readily with a good sharp common spade. But in digging such a drain as that marked figure 3, a narrower set of spades becomes necessary, such as figures 4 and 5. The formation of the bottom of the ditch is that part of the work, however, which needs the most care and skill; the surface of the bottom should be smooth and have a gradual ascent from the mouth of the outfall. The grade of this ascent, of course will be regulated by the nature of the ground, and the course of the drain. As good an implement as any to regulate this grade, is a common mason's long level, made pretty stiff and its reach about 12 feet. If the grade is two inches or one inch to every twelve feet, the plumb lines will easily show it, and the grade can be marked on an arc of a circle, painted and marked so as to show 1, 2, 3, 4, or more inches to every 12 feet. For the purpose of facilitating the making of the bottom of narrow drains, various long handled scoops, scrapers and narrow shovels have been found useful. Figures 6, 7, 8 and 9 will give some idea of their form.

Where horse shoe tile is used, they should have soles placed under them. But where soles are not made, a good hemlock slab or narrow inch plank will answer as a substitute. This is absolutely necessary, for the current of water otherwise would be liable to wash away the earthen surface on which the horse shoe tile rested, and eventually cause a break or stoppage of the drain. The planks or slabs should lie perfectly flat and close to the bottom surface of the ditch and the tile placed in their centre,

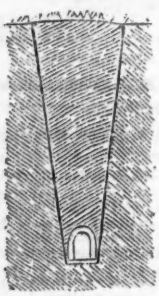


Fig. 1.

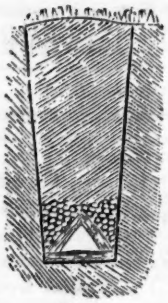


Fig. 2.

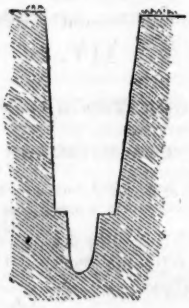


Fig. 3.

Fig. 4.

Fig. 5.

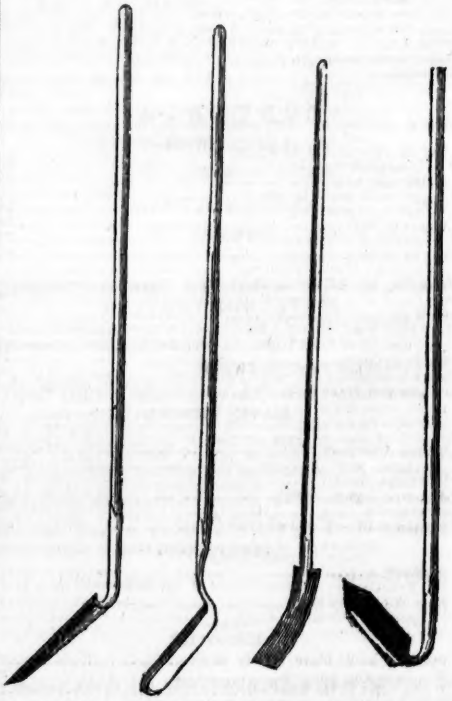


Fig. 6. *Fig.* 7. *Fig.* 8. *Fig.* 9.

where clods of earth or pieces of stone will keep them in their place till the filling immediately over the tile is completed. In filling in the ditch, it is advisable to put a layer of wheat or rye straw next to the tile, and then take sod with the grass side downwards, and lay it on the top of the straw. This not only prevents any of the loose earth from getting into the crevices between the tiles, but also, for a time, makes a filter through which the water has to pass, until the soil itself becomes consolidated over the drain, and fissured in all directions so as to permit the flow of water into the channel of the tile with an easy passage.

Where side drains are made of pipe tile, and we certainly advise the use of no others for that purpose, the drain is cut in the form marked fig. 3, with a shoulder, and the bottom spit being taken out with the narrow tools referred to, the pipe tile is laid, without the workman getting into the ditch, by means of the tool marked fig. 10. In these drains, no soles or bottom plank are needed. Where pipe tiles run across pieces of quicksand, or very loose soil, or when there is danger of displacement, collars for the joints of the pipes are recommended. These collars are formed of narrow pieces of larger pipe tile, which fit on over the joints of the small inch and half or two inch pipe tile used for side or branch drains.

Fig. 10.

After the sods are placed, the loose earth may be shoveled into the ditch until it is filled. The main drain as we have said, should be opened to its whole length, before the tile is laid. This will more aptly secure its even grade. After the main drain or drains are once laid down, the side drains to connect it with them can be laid more from time to time as the condition of the field, or the convenience of the farmer may suggest; but it is best, we think, to get every thing perfectly ready to complete one field at a time. To prepare properly for this, a map of the field should be made, on which the exact bearing and position of every drain should be laid down; the number of tiles necessary to complete the piece reckoned up; the number of days labor, and the number of men to do the work computed, and the whole expense, supervision, and method of carrying out the plan thoroughly understood, before a spade is struck to open the first ditch.

Before leaving this subject, which is every day becoming of more importance to farmers, and which, though they approach as yet slowly, they have got to come to before they can make their farms as productive as they should be, it may be well to say something as to the action of drains upon the soil. When a ditch is cut through a piece of land saturated with water, and a channel afforded for the water to flow without interruption, there is a general change in the hydrostatic relations which

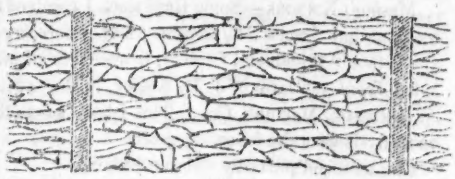


Fig. 11.

exist in its vicinity. The water which was before held above a certain level by capillary attraction, has its support taken away, and it immediately sinks, flowing in the direction of the drain, and opening fissures and little branching channels all having a tendency towards the drain. The fissures extend from the drain to the surface. Meanwhile as the water near the drain flows away, its place is supplied by the water which has heretofore stood at a higher level, and the pressure continues until the influence of the drain is felt throughout the whole mass of earth, and the water is removed by its own weight, in obedience to the natural law which compels it to seek a lower level, as soon as it can find a channel. When water begins to move in this way, the drain is said to have commenced *drawing*.

The other effect of the removal of water is to render the soil porous. Whenever a soil is freed from moisture, it shrinks, and the greater the drought the more shrinkage there is. This is another cause of fissures and cracks in the soil, and clay soils are peculiarly liable to this shrinkage, as any one will admit, who has noticed the great fissures which a dry season will cause on the surface of fields. The cut marked fig. 11, will give an illustration of the effect of drainage, upon stiff soils. In this way, not only is the injurious water removed, but the soil also gets liberty to breathe; the air permeates through it, and when rain falls, it drains healthily, without being choked to death. This *aeration* of the earth, is of the utmost importance to a wheat soil, and hence one of the highest benefits accruing from thorough drainage.

A Machine for Milking.—Some ingenious youth named H. A. Reeves, of Williamson, Wayne Co. N. Y., has invented a machine for milking cows. The invention consists of a pocket into which the teat of the cow is introduced, and against which a series of little rollers are made to play by the turning of a crank. By the turning of the crank, the milk is forced into the pocket from whence a pipe conducts it to the pail. The editor of the Scientific American recommends that a music box or a small hand organ

should be connected to the crank, and then the milk-maid and the cow could both enjoy an intellectual treat while the mechanical operation of milking was going on.

Analysis of Marl.

MESSRS. EDITORS —Some time since I received for examination from J. C. Holmes, Esq., Secretary of the State Agricultural Society, a specimen of marl taken from the farm of J. D. Kelsey, in the town of Washington, Macomb Co. This I have submitted to analysis with the following result.

One hundred parts by weight contain:

1. ORGANIC MATTER	2,2466
2. CARBONIC ACID	23,0934
3. AQUEOUS EXTRACT.	
Chlorine	,0074
Lime	2,1743
Magnesia	,2673
Soda	,2693
4. COLD HYDROCHLORIC EXTRACT.	
Oxide of Iron	1,0080
Alumina	trace
Lime	37,8044
Oxide of Manganese	,2009
Magnesia	2,0676
Potash	,2402
Soda	,7700
Phosphoric Acid	,5001
5 HOT HYDROCHLORIC EXTRACT.	
Oxide of Iron	,3110
Alumina	trace
Lime	,0430
Manganese	,1842
Magnesia	,4660
Potash	,0970
Soda	,4543
6. SILICATES.	
Alumina	2,3213
Oxide of Iron	,0010
Lime	,0042
Magnesia	,0002
Manganese	,3 78
Silica	16,1105
1. Organic Matter	2,8466
2 Carbonic Acid	32,0934
3. Aqueous Extract	5,7183
4. Cold Hydrochloric Extract	42,5912
5. Hot Hydrochloric Extract	1,5555
6. Silicates	18,7750
Total	100,08 0

If the whole of the lime were in combination with carbonic acid, about 71.5 per cent. of the marl would be carbonate of lime. It is probable however that a small portion of the lime is united with silica to form a silicate of lime, and with phosphoric acid to form a phosphate, which would then leave a little more than 70 per cent. as carbonate.

The percentage of carbonate of lime is unusually large, as it seldom reaches more than 50 to 60 per cent of the marl. I was surprised to discover the presence of so much phosphoric acid, 0.5 per cent. The proportion of potash and soda it will be seen is considerable. The percentage of iron is quite large. Next to carbonate of lime the silica is the most abundant ingredient. Did I not know the fact I should infer from the composition of the marl that it came from a sandy region.

The elements dissolved by "*Hot* Hydrochloric acid" were probably in great part combined with silica, which will account for the fact of their not being readily dissolved by "*Cold* Hydrochloric acid." The silicates are more easily dissolved in the soil than pure silica, and hence are much more favorable to the growth of vegetation.

One of the most marked characteristics of the specimen presented me for anlysis, was its almost entire destitution of organic matter. Its color was nearly white, and it contained very little organic matter except a few vegetable fibers.

More particularly with regard to its physical properties, I would state that its specific gravity is 2,548, has but little tendency to absorb moisture, and that it abounds in small fresh water shells in a good state of preservation.

ITS AGRICULTURAL VALUE.

What is its value as a fertilizer?

1st. It contains just the elements plants require for their growth.

2nd. Carbonate of lime is the predominanting ingredient, and hence would be introduced into the soil in much greater quantity than any other.

3rd. Should the soil be deficient in carbonate of lime, chemically the marl could not fail to improve it; and it contains no ingredients which would be hurtful to vegetation. Its potash and soda, and especially phosphoric acid, would add to the richness of the soil.

5th. But these consideration do not settle the question. There are two points first to be decided—the *chemical*, and also *physical* properties of the *soil*. It may be that the soil already has an abundance of the ingredients which predominate in the marl. If so it would be useless, or perhaps injurious. The soil will not need to be supplied unless it be somewhat destitute.

Again, should the soil before the application of the marl be too porous, a light sandy soil, I should not expect the most favorable results from the use of this quality of marl. The soil needs something that would render it more compact. From its large percentage of silica, and slight absorbing power, I should not look for very beneficial effects when applied in a dry season. And should the land be both very sandy and limy, I would not recommend its use as a fertilizer. We should be governed by the same principle in the application of manures as in the use of medicines; we must first determine the evil to be remedied. It would be just as philosophical to give rhubarb to every patient, as a sandy marl to every soil. Phys.

ically, should the soil be very heavy, this would benefit it, and should it require the elements of which the marl is composed it would certainly be rendered more fertile.

Mr. Kelsey wrote me that he had "burned and spread on one acre of dry sandy land (as devoid of lime as he could find) about four loads of this marl, and on another acre the same amount of that which was unburned; these, together with another without any marl, he planted with dent corn." I fear that neither the season nor the quality of soil have been most favorable for determining the agricultural value of the marl.

I may take occasion at some future time to make a few remarks on the knowledge we may expect to derive from experiments.

The question is sometimes asked "how shall we manage land that has too much lime." One property of lime is that it hastens the decomposition of organic matter, and hence land containing an excess of lime would be liable to a deficiency of organic substances. Doubtless such land would be improved by frequently applying organic manure. Attention of course must be given to the presence of the various mineral ingredients.

The bed from which the specimen analyzed above was taken, "is spread over a surface of some 30 acres and is from a few inches to two feet or more thick. This is overlaid with from 8 to 16 inches of vegetable matter." This peaty matter I have not seen, and cannot therefore speak of its quality, but if the soil does not contain an abundance of organic matter, the peat could be very advantageously applied with the marl.

L. R. Fisk.

Normal School, Ypsilanti, Aug. 1856.

Chapter on Shoeing Horses.

BY M. A. CUMMINGS, V. S.

The first thing that takes the notice of any one accustomed to see horses well shod, on looking at the feet of almost all he meets here, is the preposterous length of the toes. When the foot is unshod and the horse at liberty, the growth of the hoof is barely sufficient to provide for the constant wear and tear of the sole and toe, and consequently no part is either wanting or superabundant. But when the horse is put to work on hard roads, and stands in dry stables, the foot becomes inadequate to the wear, and to save it we put an iron shoe on. This shoe prevents the wear, without checking the growth of the hoof; and to compensate for this, every time the shoe is off, the foot should be brought as near as possible to the form and size that nature gave it. In the unshod colt, the greatest diameter of the hoof is across the sole. This is especially the case in the fore foot, and it contributes materially to the usefulness of the animal that it should continue so through life.

Leverage of the Fore Leg.—The function of the fore leg is mainly that of supporting the weight of the body, head, and neck, and of transferring that weight forward from point to point the time the animal is in motion. In performing this latter action, its mechanical bearing is much the same as that of a spoke in a carriage wheel. It is, in fact, a lever, in which, to give increased speed, the power acts at a disadvantage; the fulcrum or fixed point being at the long end of the lever, while the power and weight act near each other at the short. The long portion or arm of the lever is the leg from the elbow to the ground, the toe being the fixed point over which the body is raised, and hence any addition made to the length of the toe has the same effect upon the horse as the placing a block before the wheel of a carriage has on it. It acts against the muscular power of the animal as used in the raising and carrying forward of his weight, and if ridden, of the weight of his rider, and though only requiring a small additional effort at each step, tells materially in a day's journey. Every one, the least a judge of horses, can tell of the advantage of having them short below the knee, and is ready to despise as mis-shapen any one that has the reverse defect. But there seem few (hereabout at least) who have got so far as the consecutive idea, namely, that to cultivate an additional inch of unnecessary toe is just the same as to put that much to the length of the bone below the knee, in fact, for the horse, worse, as the addition is made at the point of greatest disadvantage.

Of the Hind Leg.—In the hind leg, though the functions of the part be different, the effects of a long toe are equally an evil, if any odds worse. The main use of the hind leg is the propulsion of the body forward, and when hauling of the load also. In effecting this, the leg from the hock to the ground is a lever also of the second class. The power is the muscles whose tendons are inserted into the point of the hock, the resistance is concentrated in the *tibia*, or bone of the leg, where it forms the hock joint, and the fixed point of the lever is the point of the toe upon the ground. From this it is plain, on the simplest mechanical evidence, that anything added to the length of the toe is so much leverage placed against the animal's power of hauling, and consequently that he must either do less work, or else exert himself more in the doing of it.

Mechanical disadvantage to the horse in the performance of his work, however, is but one of the evils following the long toes common in this country. Another, equally great, often arises when he is standing at rest.

How Sprung in the Knees.—Every one knows what is meant by a horse being "sprung in the knees." For the information of those who are curious to know how this condition is produced, I will explain one of its causes. The bones of the foot and pastern of the horse do not stand perpendicularly above each other, but slope backwards, a considerable portion of the animal's weight resting on the tendons that pass down the back of the leg, and hence the greater the slope, the more strain the tendons have to bear. If we put a horse to stand with his head up hill, more exertion is needed to sustain himself than if standing on a level. The reason is that the bones of the foot and pastern are thereby placed more obliquely, and more of his weight is thrown upon the tendons and muscles, and thus a wearied horse, if left to himself, always feeds with his head down hill. But we add to the slope of the foot and pastern the same, by adding to the length of the hoof and shoe, as by placing the horse's head up hill, and with greater permanency of effects, as we leave him no power to relieve himself. Often the

two conditions are conjoined, the toes are injuriously long, and the horse is confined nine-tenths of his time in a sloping stall. Here the muscular exertion of sustaining his weight soon becomes irksome. He shifts from one foot to another, but finds it only a temporary relief. The muscles connected with the tendons that pass down the back part of the leg to the foot soon begin to relax, till the weight falls on the ligamentous straps behind and below the knee. Then the bones of the pastern and foot become still more sloping, and to sustain his body perpendicularly above his feet, and still more to relax the muscles, the knee bulges out in front to a line with the projecting toe. This at first occurs only now and then, when the horse is wearied or forgetful, his postures becoming natural and proper when roused up. By-and-by, however, it becomes a habit, and the causes being permanent and constant in their action, the effects soon become the same, and we have the horse for life "sprung in the knees."

Partial Remedy.—Many a valuable animal, tottering on the brink of this condition, has been saved and brought back to usefulness, by having his feet put in a proper shape, and a run at grass, or a loose box to stand in allowed him, while others, on whom the tortures of long toes and sloping stalls was persevered with, have become permanently useless.

Interfering.—Another evil, resulting from the length at which the toes are commonly left, is interfering. The horse, finding the long projection in front of his foot as so much leverage acting to his disadvantage, gradually gets into a habit of shifting, by raising himself from one or the other of the quarters. This is still more the case when, in addition to the long toe left on the hoof, a small round knob of steel is set is set into the point of the shoe, as if in contempt of all that nature teaches. With these absurd contrivances placed between his weight and the ground that supports it, it is next to impossible for a horse to raise himself evenly upward and forward, and hence the number that one way or another interfere. If in raising his weight from the ground, the pressure be upon the inside quarter of the foot, when the thick part of the pastern is thrown inward, in the way of being struck by the upper edge of the hoof of the other side. If the cant be the other way, and the outside quarter raise the weight, the inside edge of the shoe is thrown round and upward, and runs the risk of cutting with it the opposite leg. Even when the horse from having a naturally good gait escapes both these evils, still he is not free from trouble caused by this shape of shoe.

Natural Mechanism of the Fore Foot.—The fore foot of the horse as nature makes it, has no projection in front and downward as that which the smiths here give it, but rather the reverse. The sole surface at the toe is commonly broken off and notched back at the middle, so that the pressure, when the foot strikes the ground or the animal is raising his weight, is dristributed over the whole front of the foot. In accordance with this the coffin bone, which fills the internal cavity of the hoof, has the same turned up and notched back form. In England, France, and the Continent of Europe generally, wherever Veterinary Schools exist, and scientific attention is given to shoeing, this natural form of foot is more or less followed in the shape of the shoe, and the animal has preserved to him, along with the protection from wear which the shoe gives, the position of tread for which nature has constructed the other mechanical arrangements of his organs of motion. Why it is not so here is perhaps partially due to the use of buttris for cleaning out the foot when it is shod, as it is impossible with this antiquated instrument to bring the hoof to the proper shape in all its parts; but it is more so to want of study on the part of those who shoe, of the structure of the foot, its uses, and the relation existing between it and the other motive organs, the bones, tendons, and ligaments of the limbs.

Mischief of Narrow Toe Caulks.—Let me describe for an instant the way the horse is commonly shod here. The foot an inch longer at least (often more) in hoof than it should be, and brought out to a point instead of being rounded back. On this point is placed an addition to the unnatural length of the shoe, a round button like knob of steel with perhaps only the fourth part of an inch of level bearing a rest upon the ground. When the ground is soft it is all well, as this projection penetrates till the flat of the shoe comes to bear the weight; and all the extra labor the horse has is that of raising himself an inch or two more than he needs at every step, and digging up an unnecessary quantity of gravel. But the case differs when the horse treads on anything impenetrable, as a piece of stone, or smooth hard rock. Then the difficulty of raising his weight is added to by that of balancing himself while doing so, upon the pivot by which the point of his toe is terminated. The horse not being furnished by nature with muscles of abduction and adduction in the fore limbs, (that is, muscles for drawing the legs outward or inward, from or to the body,) has but little power of balancing himself from falling sideways. The instant he begins to raise his weight upon the narrow base of less than half an inch on which the smith has propped him, the tendency is for him to topple over which he does till the side or quarter of the shoe, either outside or inside, takes the ground and gives him further support. This however, is not done without a cant or jerk to all the joints of the foot. True, it is the work of an instant, and the horse recovers himself, and goes on before we can almost see it is done. But then the same occurs a hundred, it may be a thousand times a day, when the roads are rocky, or dry and stony; canting, twisting, and jerking the coffin pastern and fetlock joints at every step, and yet, we daily meet with those who gravely wonder how the ringbones, swelled fetlocks, sprains, are all produced.

Another of the errors in shoeing which I found current when I came here, was the want of a tip, or projection turned up on the point of the shoe for an abutment against the toe of the hoof. It seemed to me that in respect of this, the smiths had turned the shoe wrong side up, giving a tip downwards where nature never designed it to be, and denying upwards, it was essentially wanted. As from the long toes so from this also, the fore feet are the greatest sufferers. I have already mentioned the function of the fore limbs to be mainly the support of the weight,and its transference, from point to point during the motion of the animal. In doing this a considerable degree of concussion is inflicted upon the foot every time it strikes the ground. The direction of this concussion is neither right downward, nor right forward, but between the two; partaking of the horizontal motion of the body of the animal along the road, and of the perpendicular direction of the descent of this weight.

Natural Spring of Horse's Hoof.—Every one

knows the additional power of resisting or sustaining concussion and weight any fibrous substance has, if struck or pressed in the direction of the fibres, besides if acted on in any other. The hoof of the horse is composed of an infinite number of dense fibres strongly agglutinated together, and to enable it with the greatest advantage to meet and support the concussion there is when it strikes the ground, these fibres are every one of them so placed in the unshod foot as to receive the shock directly on their ends. In addition to this, the front part of the hoof where the force of the concussion is greatest, is twice or thrice as thick and strong as the side and heels, its slope indicating exactly the direction of the descent of the horse's weight.—*N. Y. Spirit of the Times.*

Jottings in Lapeer, Saginaw and other Counties.

July 14, 1856. I saw on the farm of C. P. Stone, town of Almont, Lapeer county, a completely tilled nursery containing 50,000 apple trees, 6,000 cherry, and 1,500 quince trees. The apples are all root grafts of the most choice varieties. The cherries and quinces are seedlings, all one year's growth, transplanted April last from Hartland, N. Y.; not a tree lost, all look thrifty, the ground is perfectly clear—not a weed in sight This is a move towards supplying the north-eastern part of Michigan with choice fruits in a way that is not liable to imposition.

Mr. Henry Groff, of Metamora, in the same county, says he has found that the best farm lies below. Since he has adopted the plan of using a four or six horse team, and Weird's No. 6 plow, he gets better crops. He says he has ascertained that the roots of the grain penetrate as deep as he plows, even if that is one foot. It is his opinion, also, that one acre of cat-hole swamp, after being thoroughly drained, is worth two acres of other land.

July 18. Town of Lapeer. Saw here the first harvesting I have witnessed this season, on the farms of James and John Clark, with one of Seymour & Morgan's self-raking reapers. It worked like a charm.

Estes H. Higly, in the year 1855, sowed three bushels of wheat on two and a half acres of ground, and harvested from the same 120 bushels. He thinks the southern counties cannot brag over Lapeer. J. B. Wilson, of this town, has a fine stallion colt, three years old last June, out of Victor who drew the first premium at the Michigan State Fair in 1852 or 3; the then property of Mr. Hill. He is an extra good colt, Mr. Wilson has also some fine Devon heifers, one two year old that he now informs me is giving a patent pail full at a milking.

I would say of the general features of Lapeer county, a stiff soil prevails; there is a ridge of gravelly loam land setting in near Almont, and extending off for miles in a west by north and northwesterly direction. The county is rolling, and the scenery quite charming. In some localities sand prevails in the soil, but as a general feature it is a stiff clayey soil, mixed with coarse gravel—in some places quite stony. The same general features prevail in the north east portion of Genesee county; but Genesee is still more level than Lapeer.

From Dryden, in Lapeer county, west through Genesee and Shiawassee counties, the drouth is severe. There was a prospect of rain several times while I was passing through, but no more fell at a time than to comfortably lay the dust, and seldom enough for that. The corn and potato crop in this region will be nearly a failure; and oats, unless very early sown, would hardly pay for harvesting.

I passed over a strip of territory about four miles wide by six or eight in length, east and west, lying between two parallel marshes in the towns of Verona, Shiawassee Co.,and Gaines and Dayton,Genessee Co., light gravel sand and loam, black and rich. It is heavily timbered with the most admirable variety of timber, but sugar maple and basswood prevail. I was told that the tract was bought up on speculation many years ago, but can be bought now by settlers at from $6 to $10 per acre.

I spent but two days in Saginaw county, consequently had but little time to make observation; but in my humble judgment the day is not far distant when Saginaw will take her place among the first counties in the State, both in point of agriculture and commerce. At Hampton, or Lower Saginaw as it is commonly called, I noticed a black alluvial soil, and was told by Col. Raymond, of that place, that the same features of soil prevailed east and south, for eighteen or twenty miles. The crops were suffering some from drouth at Saginaw, but not as in the counties above spoken of; and I found the drouth severe until I got back south, near the base line. In the town of Salem, Washtenaw county, Aug. 16, the first mown meadows and stubble fields were clothed in green, a second growth produced by the seasonable rsins. It was refreshing and cheering to look at them, I assure you, after traveling so many weeks over parched and sunburnt earth.

J. A. Baldwin.

Attend to the Bees.

The complaint is quite prevalent that the moths are making unusual havoc with bees. Young swarms have been very much injured. Old ones that in the Spring appeared in good order have been destroyed by them. The hives should be examined often, and all the larva destroyed; the eggs are deposited around the hive upon the inside when the moths can get in, and when they cannot they lay them upon the outside between the hive and board upon which they stand. Thoroughly clean off and wash with lime and salt the boards under the hives, and renew the same as often as washed off by rains. N.

On Carrying Cattle to Eastern Markets.

The speed and promptness with which cattle, in large or small droves, are taken from our western fields and prairies and delivered to the consumers in the great eastern markets of New York and Boston, are not generally understood. Neither are the rates of freight or the general cost very definitely known. To satisfy some inquiries, we have made application for information to persons connected with the transportation of stock in Detroit. We find that during the present season the time occupied by the cattle trains coming from the cattle yard at Chicago to this place, has been reduced to twenty-two hours and twenty minutes. Formerly it took from twenty-five to thirty hours. This gain of time over the Michigan Central Railroad is owing to the judicious management of C. H. Hurd, Esq., the Assistant Superintendent, who has the arrangement of trains particularly under his supervision. When the cattle arrive at Detroit they are put into large roomy yards, about a mile and a half from the depot, where they are fed and watered before again starting eastward. From Detroit there are three routes by which they can reach the eastern markets, namely:

First, by the Great Western Railway to Niagara Falls, thence by the New York Central Railroad to Albany; and thence by the Hudson River Railroad, or by boats on the Hudson river, to New York; or from Albany they may reach Boston by the Western Railroad.

Second, cattle may be shipped at Detroit on board the propellers of the American Transportation Company, of which the well known firm of J. L. Hurd & Co. are the agents, whose vessels run steadily between this port and Buffalo. And from Buffalo the route is by the New York Central Railroad, and otherwise as above.

Third, the other route which may be chosen is by Lake propellers to Dunkirk, and thence by the Erie Railroad direct to New York.

By the first route the cattle are shipped across the Detroit river and put on board the cars of the Great Western Railway at the Windsor depot, from whence they reach Niagara Falls in fifteen hours. At this point the cattle are again put into yards and fed before being put on the cars of the New York Central road. From the falls to Albany the time occupied is twenty-four hours. From Albany to New York by the Hudson River Railroad, the time is seven hours; by steamboat about ten, if they do not happen to get stuck on the overslaugh.

By the second route propellers take them to Buffalo in about twenty-five to thirty hours, whence by the New York Central Railroad the time is the same as above given.

By the third route propellers usually run from this port to Dunkirk in from twenty-five to thirty hours, and the cattle reach New York from Dunkirk in about forty or forty-two hours more. By this way, while the cattle lose the chance of reaching the Boston market, they are subjected to but one trans-shipment between the lakes and their final destination.

It must be recollected that the number of hours above given includes only the time passed in traveling, and not that which is occupied in feeding at the various stopping points, which will average at least six hours each.

The summing up of the time for these several routes makes the following table:

Great Western Railway.

Chicago to Detroit,	22½	hours.
Detroit to Niagara Falls,	15	"
Niagara Falls to Albany,	24	"
Albany to New York,	7	"
Three changes of cars at six hours each,	18	"
Total time from Chicago to New York,	86½	"

By Propeller to Buffalo, and to New York via New York Central Railroad.

Chicago to Detroit,	22½	hours.
Detroit to Buffalo,	25	"
Buffalo to Albany and New York,	31	"
Changes of cars and trans-shipment,	18	"
Total time by propeller via Buffalo,	96½	"

By Propeller to Dunkirk, and to New York via Erie Railroad.

Chicago to Detroit,	22½	hours.
Detroit to Dunkirk,	28	"
Dunkirk to Jersey City and New York,	41	"
Two changes at Detroit and Dunkirk,	12	"
Total,	103½	

The cost of transportation by these several routes varies but very slightly. The demand for accommodation by the railroad lines for the past year has been such as to stimulate the companies to put on a rolling stock sufficient to render the connections very perfect and reliable. Sometimes trains nearly a quarter of a mile in length, with two engines attached, may be seen starting from Windsor, filled with cattle, sheep, and hogs.

The rates per car load from Chicago to Detroit is $50. A car load contains generally from 12 to 16 head of cattle, according to the size of the animals. The Great Western Railway carries 18 head in each car, at the rate of $2 50 per head, to the Falls. From that point the cattle are taken by the car load to Albany at $70, and to New York at $98. Hogs and sheep by the car load, in double-decked cars at the rate of $80 to Albany and $110 to New York.

By the propellers cattle are taken from Detroit to Buffalo at $1 75 to $2 00 per head, and hogs and sheep billed by the railroad $15 per car load. The rest of the expense from Buffalo to New York or Albany is as given above.

From Albany to Brighton or Boston, by the Massachusetts Western Railroad, the rate of freight by the car load is $45, and for hogs and sheep twen-

ty per cent. less. The time occupied on this route is twenty hours.

If, then,we make the average car load of cattle to be fourteen, and the rate of freight by propeller to Buffalo $2 00 per head, the total cost of transit per head to Boston would be $13 78, and to New York $12 57. To this is to be added the cost of forage and feed with which they have to be supplied at the several stopping places, and which we presume would be covered by an average of fifty cents per head.

By the Dunkirk line of propellers and the New York and Erie Railroad, for which C. Bancroft is the agent at Detroit, the time of transportation on the lake, by propeller, ranges about the same as to Buffalo, namely, from twenty-five to thirty hours. From Dunkirk to Bergen, in New Jersey, the time occupied is about forty-one hours. On this road there is a half-way station at Campville, where large and extensive cattle yards are established, and where droves are taken out and fed before proceeding to New York. The rate of freight by propeller is $2 per head for cattle, and for sheep and hogs $3 per ton. Cattle and sheep are taken by the car load from Dunkirk to Bergen at $96 for cattle and $108 for sheep and hogs. We have not been able to find out how many cattle of medium size make a car load on this road. The track is a six-feet gauge, and consequently the cars are built wider and more capacious than on roads of a narrow gauge. Should the cars of the road carry eighteen head of ordinary sized cattle, it would make them average $6 50 per head, or altogether $8 50 per head from Detroit to Bergen. At this point, which is nearly opposite New York, on the Jersey side of the Hudson, extensive yards and sheds are erected,and a large market is formed,where numbers of cattle are sold.

Sale of Horses.

As we are a horse racing, horse trading set of stock jobbers, perhaps a few hints as to what constitutes a sale or trade will not come amiss to those who like to take advantage of a good bargain or want to get *lawfully* out of a bad one.

The following we believe our modern courts hold to be law on this subject.

The buyer should take a receipt in which should be embodied a warrant in substance as follows:

Received of S. W——, one hundred dollars for a bay colt, warranted sound, only 3 years old,free from vice, and quiet to ride or drive. The age, freedom from vice, and quietness to ride and drive, should be inserted because these are not included in a warranty as to soundness. A horse is sound in which there is no disease nor any alterations by which he is rendered less useful; and unsound if laboring under any disease, or had any accident or any alteration in the structure of any part of his body by which his natural usefulness has been impaired. Unsoundness does not apply when the horse is originally defective in temper or deficient in strength and power. From an excellent work on horses we quote the following ;

"The principal circumstances that constitute unsoundness beside actual disease, are broken knees, which may indicate a stumbler, though not always, for any horse may meet with an accident and the knee be quite well; though it requires great judgment to distinguish in this case. Contraction of the foot is sometimes, though not always, unsoundness, for this may be natural and not a fault.

The following defects indicate unsoundness, lameness from any cause; pumiced foot, sand crack, spain, splent, thickening of the back sinews of the leg, thrust, ossification of the cartillages of the foot; defects or diseases of the eyes, coughs, roarings, broken wind, or any defects of the lungs, quidding, or imperfect mastication, crib-biting, biting, kicking, restiveness."

The sale is incomplete without a transfer of the animal or the payment of earnest money,or unless some note or memorandum in writing be made and signed by the parties. Some one of these is necessary in order to render the sale binding, and the moment either is effected in good faith the property passes, whatever may happen to it afterwards. The purchaser by any act of ownership, performed without leave of the vender,renders the animal his own.

The master is considered bound by the warranty of his servant. Whoever ventures to buy a horse without a warranty should have a more perfect knowledge of the seller and animal than falls to the lot of most men. A warranty covers all unsoundness, but it is true a person buying without a warranty and afterwards a defect is discovered, may bring an action on the ground of fraud, but this is troublesome; it must be proved that the dealer knew the defect. A warranty will protect the buyer even tho' the defect be not concealed, for it is presumed that upon the strength of the warranty he takes the horse, and therefore he may compel the seller to make it good. Without a warranty the buyer must prove a knowledge of the defect on the part of the vender, with a warranty he need not, for that is his guard A person may buy a blind horse under a warranty of soundness and return it,but not so if he buys without a warranty, for then he has no remedy. Every one is bound to exercise common sense and circumspection, or the law at least so requires.

The buyer had better give notice of discovered unsoundness, although not compelled so to do; and then he should tender the animal at the house or stable of the seller.

Upon a refusal by the vender to receive him, the horse may be sent to a livery stable for keeping, for

the fine may be recovered together with the expense. The buyer should not commence any medical treatment. If A buys a horse warranted sound with a warranty, and sells to B before he has discovered any defect, but sells upon the strength of his warranty, and B returns him unsound, A may recover from the first vender, not only the price, but every incidental expense.

If the buyer detains a horse after the specified time of trial has expired, the supposition is that he considers the sale absolute.

S. BARENT.

Jonesville, Mich

Valuable Letter on Draining.

MESSRS TUCKER & SON:—I write you to say that I have finished draining my farm. I may put in a few in spots in different fields where I have not been thorough enough, but the whole cannot amount to more than 200 rods. I took up the first drain I ever laid, to dig it deeper, in order to drain a flat piece of land adjoining. It is nearly eighteen years since the tile were laid, and I found them as good as the day they were laid. People would ask me if my crockery would not decompose, laying in the earth, and my money all be lost. These inquiries were in my early stage of draining. Many thought it would make the land cost more than it would ever come to, and some would say it never could pay.

Now, Messrs. Editors, I have finished, and I can speak to a certainty. I firmly believe I can take a farm similar to this, and with $400 or $500 drain it, every acre, complete. *Don't start now, until I explain myself.* With that $400 or $500 I would at least drain twenty acres very thoroughly, and get two crops of wheat from that twenty acres. The excess of crop over what it would have been had I not drained it, would at least give me back my money again to go on and drain twenty acres more. I never gave the drained land rest until it paid back the loss of drainage, so you can readily perceive that it don't need much capital after all to drain a farm. It requires good management and enterpris to get along with it, and the owner of the land to have it done under his own inspection, and have it done so that he is sure it will thoroughly dry the land. He is only loaning the money to the land for one or two years; after that he gets it returned; and every two or three years during his life-time it is again returned; therefore you and your subscribers can readily perceive that capital for draining is not so much needed as it would appear to be.

I have tried to explain this as well as I can, as I often hear farmers say, as soon as I get some spare money I shall go to draining; but I know no better way to get spare cash than to drain the land. I had many things to contend with when I commenced—great cost of tile, and double the cost and more for digging, with public opinion desperately opposed to the mode of improving the land. But draining is the great radical improvement; it is the ground-work of all other improvements. Clay soils are much easier cultivated; ten loads of manure will do more good on drained land three times as much on wet or even damp land. I have no doubt whatever, but the crops in New York State can be far more than doubled by a thorough course of drainage, and no country I ever saw requires it more than Ohio and Canada, at least what I have seen of those countries.

A number are engaged at draining slowly in this section, but it vexes me, (or as a Scotchman would say angers me,) to see how imperfectly some of it is done. Some have bad outlets, some trust the work to men who have dug many ditches, and think that they must know how it should be done. Such men, or some of them cheat their employers shamefully. I know at least one farmer, who, when he went to plowing his drained land, plowed up his tile, and I know more that will plow them up whenever they study their own interest by deep culture. I was on the farm of a Mr. Humphrey in Ontario county, a few weeks ago. He deserves great credit for what he has done in draining. He has drained a great deal of swamp land, that a few years ago was worse than worthless, as it then bred pestilence. Now he has more than sixty acres of that worse than worthless land let at a rent of eight dollars per acre a year—part to raise corn and part peppermint, and he says it is worth a great deal more. Some of it he cultivates himself, and I saw a field which is the fifth in succession, year after year, and I assure you it is a good crop and early. I saw another field, oats equal to anything I ever saw. Mr. H. was engaged digging many of the ditches deeper, and now making them from five to six feet deep. The water comes out at the base of sand hills, of which his upland is mostly composed, and he has only to tap the base of these sand hills and then keep the water under ground until he reaches his outlets, and it is not expensive draining after all; although to be perfect he has to get down to the gravel some five to six feet deep, but the earth being porous the drains admit of being wide apart. This is one striking instance of what draining will do, although it don't show what draining will accomplish on upland; yet I have no doubt but there are millions of acres in the State of New York like Mr. H.'s, that might be so improved if they were owned by men of enterprise. Mr. H. is a thorough-bred American. I had always thought it required some foreign blood to make an enterprising *drainer*, but he is one exception JOHN JOHNSTON.

Near Geneva, N. Y.—July 11, 1856.—Country Gentleman.

Gathering Clover Seed.

A writer in the *Valley Farmer* gives the following method of collecting clover heads:

We once made and used for many years, a very simple machine for gathering clover heads, with which a man and horse can go over and gather the seed from double the quantity of land in a day that he can cut over with a scythe; and when the heads only are gathered, they require no other labor, except drying, to prepare them to run through the hulling and cleaning machine. Any tolerable workman can make one of these machines in two days. It is upon the following plan: Make an ordinary sled with the sides or runners fourteen inches wide and six feet six inches long. These may be placed five or six feet apart, and secured together with two cross pieces only at the back end, leaving the forward part open to the length of three and a half or four feet; then a box is made to nearly fill the width between the runners. The box is four feet long and fifteen inches deep, with the forward end open. To the cross pieces at the bottom of the box, at the forward end, teeth of hard wood are secured so as to

project about twelve inches; they should be three-quarters of an inch thick and one inch wide on top, and made a quarter of an inch narrower or beveling on the under side. These teeth are placed *three-sixteenths* of an inch apart, so as to form a comb. If the upper side of the teeth were capped with hoop-iron, neatly fitted, it would be better. This box is hung between the sides of the sled upon two gudgeons or pins two inches in diameter, just as a cannon is hung in its carriage. With two handles, four feet long, secured to the box and projecting behind, the box may be moved on the pins so as to lower or raise the teeth to adapt them to clover of any height A man with a horse can strip the heads from four or five acres of clover in a day with this machine, and collect it in the box. With one of these machines. a farmer can gather as much seed in a day as would be required to seed forty or fifty acres. It needs no hulling or cleaning unless it is designed for market Some prefer to sow the seed in the chaff to that which is cleaned.

Great Trial of Reaping and Mowing Machines.

A trial of reaping and mowing machines took place at Richmond, Ind., on the 26th of June, and continued three days, under the direction and management of the Indiana State Agricultural Society.

From all we can learn, this was one of the most important and interesting trials of harvesting machines ever had in the United States. There was on the ground a large gathering of farmers from almost every portion of the State, including Gov. Wright and many other distinguished citizens.

There were about twenty-five single and combined machines entered for competition, including several new ones. The draft of each machine was determined by the dynamometer, the only practicable method of determining the power exponded, but as the judges have not made public their report in full, we are unable to give the comparative draft of each machine, and other important points, but will do so when we receive the report.

The following are the names of the principal machines entered, and the names of manufacturers, and the award of the premiums: Manny's combined machine, manufactured by H. B. Howard, Louisville, Ky., entered as a Reaper and Mower. Danford's combined machine, Beard & Sinex, Richmond, Ind. Mann & Son's combined machine, Mann & Son, Laporte, Ind. Kentucky Harvester, combined, Miller, Wingate & Co., Louisville, Ky. New Jersey (cam motion) combined machine. by Deitz & Dunham, New Jersey. Atkins' Self-Raker combined, by R. Dutton, Dayton, Ohio. Mann's patent combined, by White & Hollingsworth, Ind. Hovey's Combined Self-Raker, by J. Ringe, jr, Richmond, Ind. New York Self-Raker, by Warder, Brokaw & Child, Springfield, Ohio. Ketchum's Mower, By Warder, Brokaw & Child. Ball's Ohio Mower, by L. Warrick, Ohio. Heath's Mower, by A. H. Carl, Sandusky, Ohio.

One day was devoted to the trial of reapers, and another to the mowers. The following is the award of premiums: Manny's combined machine, H. B. Howard, Louisville, first premium as a combined machine, $50. Heath's Mower, (cam motion) first premium for mower, $50. New York Self-Raker, second premium as reaper, $30. Atkins' Self-Raker, second premium as reaper, $30. Ball's Ohio Mower, second premium as mower, $30.

A trial of reaping machines also took place near Eminence, Ky., by the Union Agricultural and Mechanical Association, on the 24th of June. There was a large gathering of farmers from all parts of Shelby and Henry counties present to witness the trial.

Four machines were entered for trial, viz: Manny's patent, wide cut, manufactured by H. B. Howard, Louisville; Manny's patent, narrow cut, entered by L Jones; Atkins' Self-Raker, manufactured by R. Dutton, Dayton, Ohio; Kentucky Harvester, manufactured by Miller, Wingate & Co., Louisville, Kentucky.

The trial was chiefly confined to cutting wheat. About one and a quarter acres were measured off for each machine. As the several drivers entered strongly into the contest for speed, the quality of the work did not compare so favorably with that done by the same machines under the ordinary speed of the several teams, except Atkins' Self-Raker, which seemed to lay the gavels in a more compact form than when the team is driven at a moderate gait.

The time occupied in cutting the acre and a quarter by each machine, was as follows: Manny's wide cut, 24 1 2 minutes; Manny's narrow cut, 26 1-2 minutes; Atkins' Self-Raker, 25 1 2 minutes, (deducting 3 1-2 minutes lost time;) Kentucky Harvester, 29 1-2 minutes. The judges awarded the premium as reaper to Atkins' Self-Raker; certificate to Manny's machine.

The work done by the two premium machines was so well done, and so nearly equal, that it was an extremely difficult point to determine which was entitled to the preference. The Kentucky Harvester being defective in the construction of its platform and the place for the discharge of grain, delivered the bundles in a very broken and imperfect manner. —*Valley Farmer.*

On Well Digging.

Mr. Editor:—I wish to give the readers of the *Farmer* an idea of the manner in which well digging is done in Lenawee county. I have just read the account given by W. O. Houghtaling, of a job done for him in Livingston county by two young men; and what do you imagine occurred to our minds as we read it? We would like to know the number of day's work put upon that job, and the depth of the well.

I have a little Irishman at work, digging a well now, and this is the way he does it. He commences the well usually three feet four inches in diameter, and continues digging until he comes to water, whether in clay or sand, with no regard to the depth. He then places a curb made of half inch narrow boards, six feet long, nailed at the bottom to the outside of a rim four inches wide, made of inch boards, and double, so as to break joints. He then begins to lay the wall, of brick, for he seldom uses stone. If there is any danger of the well caving, he lays the wall on the surface, then commences digging under the wall, and thus settles the same to the depth required, finishes the wall, and the work is done.

Now for the time and cost of labor.

He will dig a well thirty feet deep in one day, and

lay the wall, and leave four feet of water. His labor, if he digs in sand, will cost $12, if in clay, say $15.

What will friend H. and those two young men think of the little Irishman's well digging, when compared with the labor of putting that oak tub and log house in the Livingston county well?

The above is not at all exaggerated, for it can be shown that he dug and walled a well thirty-three feet in one day; also that he dug a well forty and one half feet deep in one afternoon in the month of December.

But I will stop to hear from friend H. or some other one interested in well digging.

J. V. DEPUY.

Tecumseh, August, 1856.

[CORRECTIONS.—We owe it to our friend Houghtaling to publish the following corrections, which did not reach us in time for the August number. In behalf of the "type setter," however, we must say that he is not so much to blame as might seem; we have examined the original manuscript, and made it out pretty much as the printer did. Our friends must be more careful in making their figures; the safest way is to spell out the numbers of feet and inches; there will be less liability to err than with figures.]

MR. EDITOR:—The July number of the *Farmer* has just come to hand, bringing my article "About Digging Wells," in which I notice some very grave mistakes, which I would like to see corrected. First, the price of digging should have been thirty-four dollars instead of twenty-four. Second, in regard to the machine for raising dirt, the type setter has made me say "a piece of plank two feet long and two inches wide," which should have been about ten feet long and twelve inches wide, and two inches thick; quite a difference, truly, which those not acquainted with the business—those for whom it was written, would not be able to understand, nor remedy the defect. W. O. HOUGHTALING.

Sow Good Seed Wheat.

The experience of the past year has been sufficient, we hope, to convince our farmers of the necessity of sowing good seed. Many farmers had to use the wheat which they had on hand, not being able to procure any better in time for sowing. Many sowed grown wheat, in the firm belief that it would make no material difference in the result of the crop. Those men only waked up to a full knowledge of the injury they had done themselves, when the Spring disclosed how sparsely the wheat plants were scattered over the ground. There are many complaints that the finer varieties of wheat have not done well, and that the Mediterranean wheat has produced the best. This seems to be particularly the case, on old farms. We are inclined to think that this deterioration is more owing to want of thorough cultivation than to any other deficiency. In a few years these same parties will find that even the Mediterranean wheat will not grow well with them, and that rye will be their resource for a winter grain crop. Only let the farmer reflect that he cannot expect by alternations of wheat and clover alone to make his land continue to produce remunerative crops of the finest varieties of wheat. He must apply all the other resources of the farm which are now too much neglected. To grow a good crop of wheat is one of the points which every farmer tries to reach, and success year after year stamps him as a skillful farmer who understands his business. This cannot be done without some care is bestowed on the selection of the seed, and the preparation of the soil. Both are too little cared for. During this month the wheat intended for next year's crop will be sown. The seed should be thoroughly examined; and it should be cleaned with particular reference to its being seed wheat. The fanning mill through which it should be passed several times, should be driven with force enough to cause every light grain to be blown out, and screens arranged to separate from the pure grain every particle of cockle, chess, and other foul stuff. One bushel of such well cleaned seed will be worth a bushel and a half of the ordinary grain. Of the preparation of the ground we say nothing now, except that where a drill is not used, the cultivator is the implement with which the wheat should be put in the ground. It covers it more surely than the harrow, for the reason, that but few farmers make their soil thoroughly mellow before sowing their wheat.

Where there is danger of smut affecting wheat, it is usual to brine and lime the seed. This is done by preparing a brine with salt strong enough to bear up a fresh egg, and putting the seed wheat into it for twelve or fifteen hours. The wheat is then taken out and spread on the barn floor, and after giving it a little time to drain a portion of the brine off, it is sprinkled with lime recently slacked. The lime adheres to the wheat, and is sown with it. In combination with the salt, it has an excellent influence in promoting the growth of the young plant. The steep has the effect of destroying any spores of the smut, which may be attached to the cleanest seed, and prevents the spread of this fungus in the succeeding crop.

PROFIT OF UNDER-DRAINING.—Mr. William Chamberlain, of Lower Red Hook, N. Y., drained 25 acres of land, at an expense of $60 per acre, and the first three crops paid the whole expense, including cost of cultivation. He may then hereafter look for a profit of $20 per acre, on each crop. Last season part of his ground yielded 75 bushels of corn, another part 300 bushels of potatoes, while on adjacent undrained fields the crops were nearly ruined by the drouth.—[*Ex.*

The Purchase of Fruit Trees.

The past winter was a very destructive one for all fruit except the hardier varieties of apples and pears. Hardly a section of the Union, north of Maryland, escaped. During a recent visit south, we observed that even the peach orchards of Delaware and New Jersey were thinned of many of their most valuable trees. In this state we have heard of very few localities where the destruction of stone fruit was not general. Even the oldest specimen trees in the orchards of Messrs. Hubbard & Davis, and Wm. Adair, nurserymen of this city, were so injured that they had to be taken up, root and branch. Of course the nursery and young trees suffered to an equal extent. Michigan is therefore a heavy purchaser of fruit trees this year, and we emphatically protest against putting faith in the representations of tree peddlers and traveling agents of foreign nurseries who will swarm through the state this fall. The amount of loss occasioned to the fruit growers of Michigan by such individuals is incalculable. Now is a good time to put a stop to this cause of mischief, and the way to do this is to order all fruit trees as they may be wanted by the farmer or fruit grower, from some responsible nursery. The tree peddler or agent passes away with the season and is no more heard of. No damages for his misrepresentations, or for the injury done by him, can be collected. But a reputable nursery, rather than hazzard its good name, will repair thrice fold any injury caused by mistake or accident. The nursery and its proprietors are always to be found; the agents or peddlers, seldom or never.

Michigan is a fruit growing state; its farmers may confidently rely upon the best markets and the best prices for the sale of their crop. It being as easy to grow varieties of fruit of the best kinds, and the best adapted to the climate, why cannot our readers be careful in the selection of their stock when first planting their orchards? As it is unquestionable that the demand for peach trees, plums, cherries, and many varieties of pears, will be large, before giving orders to any one, be sure and select such sorts as your own experience and that of the best authorities at your command may dictate. Then if there are new varieties which it is desirable to try, select them last. Having made out the list, revise it carefully, make a copy of it, and send one to the proprietors of some reliable nursery establishment, retaining the other to compare with the invoice when received. Inform the proprietors that they will be held responsible for errors in filling out your order. The nursery resorted to should not be at too great a distance, as the expense of freightage must be an item of consideration as well as the reputation of the establishment. But no false economy should be permitted to guide the direction of your order from an honest and experienced nurseryman.

In the present number of the *Farmer* will be found several advertisements of well-established institutions for raising fruit and ornamental trees, and we notice them in order as they have been received by mail.

The Toledo nursery is a joint stock company with a capital to be invested of $30,000. The stock is principally owned by C. B. Wilkinson, Israel Hall of the State of New York, Dr. Terry, F. Prentice, and A. and R. E. Fahnestock of Toledo, Onio. This company has only been in existence a few years, having taken the grounds and stock formerly owned by Messrs. Madox, Perigo and others, who originated this nursery, we think, in 1852; the original stock, we believe was purchased from Mr. C Saul, a brother of the well known partner of the late A. J. Downing. There is now planted and in course of preparation for setting out trees, 125 acres. To clear a portion of this ground expeditiously, Mr. Dickinson wrote to us about a month ago for information relative to what stump machine it would be best to purchase. Blackmer & Brown's was unhesitatingly recommended. Mr. D. now informs us that he has purchased one of the largest size, and promises to report to the Michigan *Farmer* as to its efficiency, its cost of operation and other particulars; this promise we shall hold him to, for the benefit of our readers in general.

It is the intention of this company to set out an orchard of specimen trees; not only to test the exactness of the sorts they offer for sale, but also that they may be able to observe the effects of climate on all the varieties grown in their nurseries. With the design of making this one of the largest, most extensive and reliable nurseries in the western country, they have secured the services of A. Fahnestock, Esq., late of the Syracuse nursery in the State of New York. Mr. Fahnestock is well known as a practical and accomplished horticulturist; and his writings have long added interest to the pages of most of the agricultural and horticultural journals of New York. In fact we remember putting in type many of his communications for the earlier volumes of the Horticulturist.

For other information relative to the amount and variety of stock offered for sale this season by the Toledo nursery company, reference is made to our advertising columns.

The nursery of Manly & Mason, at Buffalo, N. Y., is the next which demands our attention. These gentlemen have been engaged in extending their fruit growing and shrubbery grounds for the supply of western New York, and also for the large demand from the western States. Their reputation is good, and orders sent to them will be faithfully filled up. Their position at Buffalo, affords them easy communication with any part of Michigan.

Third in order are the Syracuse nurseries of which Messrs. Thorp, Smith & Hanchett are the proprie-

tors. The reputation of this nursery in the western part of central New York, is not excelled by that of any other establishment. They have now a very large stock on hand. We refer to their advertisement for testimony of the quality and accuracy of the varieties of fruit and ornamental trees which they offer to the public. We learn also that their locality was not subjected to the extreme cold which affected the nurseries at the west, and therefore their supplies of stone fruits are of large growth. They offer to send catalogues to all who may comply with their notice.

Ellwanger & Barry's nurseries, have so long enjoyed a reputation of the very highest kind, that it would seem almost superfluous to do more than call attention to their advertisement. The Mount Hope nurseries are located in one of the best points in the U. States, to do an extensive business, and the proprietors have certainly extended their grounds and the whole business of raising and selling fruit, ornamental and shade trees, till they now stand at the very head of their business, with characters unimpeached. Mr. Barry is one of the most scientific as well as practical pomologists and nurserymen there is in the country, and his observations are always characterized by a practical good sense that renders them valuable. The same theory and practice which he teaches in his writing, he carries into his nursery. The importations of this establishment have always been very large.

As a matter of course there are other reputable nurseries in the country, but we cannot call attention to them, as we are ignorant of their names, of the articles they have for sale, and also of their antecedents. It is impossible, therefore, for us to recommend them to the attention of the readers of the *Farmer*.

Shelling Corn.

We have had occasion several times to refer to Mr. Linden's farm during the past two months. Among his improvements is a very excellent and substantial corn house. The floors of the lower story of this house are all laid in water lime. In one division of it is a large platform scale, as large as common hay scales. In the upper story are cribs and bins for corn. Mr. Linden informed us that he had long since discarded all corn shellers, and supplied their place by an invention of his own. This invention consisted of a frame about ten or twelve feet square; the sides were perhaps twelve inches high. The floor of this frame is composed of strong slats set an inch apart, each slat being from three to four inches broad. This floor of slats stood eight inches above the corn house floor; the whole looking somewhat like a rough trundle bed. Upon this frame some ten or twelve baskets full of corn in the ear could be emptied, and threshed out with the common flail, the corn falling through the slats as fast as shelled from the cob. By this operation the corn was shelled faster and cleaner than could possibly be done by any cornsheller. By the use of a pulley fastened to the roof the heavy frame was easily lifted out of the way, and the shelled corn shovelled into the bins which stood close by, and from which ran spouts to conduct the grain to the lower floor when it was wanted for market or for use. The cobs were thrown from the door to the barnyard below.

Grass Lake.—William Winegar's Farm.

The village of Grass Lake is situated on the M. C. Railroad, sixty five miles from Detroit, in the County of Jackson. The village takes its name from a lake in the vicinity, of nearly an oval shape, one and a half miles in its largest diameter from N. E., to S. W., and about one mile wide. With the exception of a few deep holes, the average depth of the Lake does not exceed four feet, in which grows a thick tall grass. The village is seven miles from Napoleon the Northern terminus of a branch of the Southern Railroad. A daily stage runs between the two places.

Grass Lake village is one of some importance as a place of trade; it has two public houses, four stores three churches, with a good supply of mechanics. It is surrounded by a rich farming country. Many of the farms are highly cultivated, among which are the farms of the Messrs. Watkins, Price, Clark, and others. While visiting there, our attention was more particularly called to the farm of William Winegar of which we shall speak in connection with the farm of the late Hiram M. Smith, now occupied by the widow. Mr. Winegar, in right of his wife, is one of the heirs, and manages the farm in connection with his own. The entire farm contains four hundred acres of choice land, of clay and gravely loam soil. A portion of the premises lying along the Railroad, of about thirty acres, is laid out into small lots for building purposes. There does not appear to be any waste land on the farm. Mr. Winegar has formerly gone largely into the grain business; his last crops consisted of one hundred and twenty acres of wheat, seventy acres of corn, and other crops usually cultivated. The stock upon the farm for labor, consists of two pair of large well proportioned horses, and two pair of very fine cattle. With the above teams all the labor of the farm is done. The attention of Mr. Winegar is now directed to raising superior stock. He has just made a good beginning, and has now one full blood Durham bull, four seven eighths Durham heifers, two heifers, half Devon and half native. They are fine looking animals. He has also some good native cows from which he intends to breed some half blood Durhams.

The sheep on the farm number about two hundred, half Spanish and half French, and Mr. W. remarked that he seldom lost a sheep from sickness, assigning as one reason that he always managed to have them in good order in the fall. A commodious brick dwelling is now being erected in good modern style, which, with carriage house and barns, and an orchard of one hundred and fifty trees, make a fine appearance from the Railroad. Should Mr. W. continue the improvements contemplated he will have what he designs, a model farm of great value. N.

Programme of the Fair for 1856.

The Michigan State Agricultural Society will hold its eighth annual Fair on the Detroit course, city of Detroit, on Tuesday, Wednesday, Thursday and Friday, September 30th, and October 1st, 2d and 3d, 1856.

Programme.

Entries can be made at any time previous to the first day of the Fair, by applying to the Secretary, at the Society's rooms, over No. 130 Jefferson Avenue, Detroit.

Tuesday, September 30th---First day.

Entries will be made at the Entry Office on the Fair ground during the day.

All entries should be made by six o'clock P. M. of the 30th.

Wednesday, October 1st---Second day.

At ten o'clock A. M., a Grand cavalcade of all the horses on exhibition.

The viewing Committees will then receive their Committee books from the Secretary, at the Judges stand, on the track.

The Committees on Sheep, Swine and Poultry, also the Committees of Division C, D, E, F, G, H, and K, will commence the examination of articles in the several classes for which they are appointed.

Horses.

At 11 o'clock A. M, exhibition of horses for all work, on the track.

At one o'clock P. M, exhibition of Blood Horses, on the track, with trial of speed.

At 3 o'clock, exhibition of Matched Trotters, with trial of speed.

At 4 o'clock, exhibition of Single trotters, with trial of speed.

Cattle.

At 12 o'clock, exhibition of Shorthorn Cattle, in the Cattle ring.

At 2 o'clock, exhibition of class 2, Devon, class 3, Hereford, and class 4, Ayrshire cattle in the Cattle ring.

At 4 o'clock, exhibition of class 5, cross of Blood, and class 6, cross of Blood and Native cattle, in the Cattle Ring.

Thursday, October 2d---Third Day.

Horses.

At 9 o'clock, A. M., Grand Cavalcade of all the horses on exhibition.

At 9½ o'clock, exhibition of class 18, matched and single horses on the course.

At 10 o'clock, exhibition of draught horses, with trial of strength, in a ring prepared for the purpose.

At 12 o'clock, exhibition of Foreign horses, on the course.

At 12½ o'clock, exhibition of Jacks and Mules, in the ring for the trial of draught horses.

At 2 o'clock P. M., Female Equestrianism. Immediately thereafter, exhibition of class 17, Trotting Stallions, with trial of speed.

At 11 o'clock, Address by Hon. Chas. E. Stuart.

Cattle.

At 9½ o'clock, A. M., exhibition of class 7, Native cattle, also class 10 and 11. Fat cattle, and class 12, Milch cows.

At 11 o'clock, exhibition of working oxen and steers in the Cattle ring.

At 2 o'clock, P. M., exhibition of class 13, Foreign cattle in the Cattle ring.

Friday, October 3d---Fourth day.

At 9 o'clock A. M, Grand Cavalcade of all the horses and cattle on exhibition.

At 10 o'clock, Grand Parade of the prize Horses and Cattle, wearing badges to designate the prizes awarded them.

At 11 o'clock, a trial of speed of all the horses that have been awarded a premium in either of the classes; trial at the option of the exhibitors.

At 12 o'clock, reading reports of viewing Committees.

At one o'clock, election of officers.

At one o'clock, auction sale of stock and articles on the ground.

The grounds upon which the Fair will be held are located on the Detroit river, a short distance above the city.

Steamboats will run from the foot of Woodward Avenue to the Fair Ground and back during the fair. The boats will charge 12½ cents a passenger, to and from the fair, or 6¼ cents each way.

Carriages and other vehicles will run to and from the ground at low rates. J. C. Holmes,

Secretry.

☞O. Hall, of Brooklyn, Jackson county, writes to us under date of August 11th—"The farmers here have commenced threshing their wheat. The crop proves light, averaging only from six to ten bushels per acre. The quality is very fine."

Horticultural Department.

S. B. NOBLE, EDITOR.

September.

This month like others gone before, presents much for consideration The fruits of the earth have been ripening in quick succession, the cereal to which the most value is attached has been safely secured in the garner. We have all again enjoyed the luxury of a loaf made from grain that has not undergone the growing process.

The crop of grass on which the beasts are dependant has been large and well secured. Other fruits will ripen in their order, and claim a large share of our attention. Much that might have been done in August, had time and circumstances permitted, has been left for the labor of this month. In the garden the different vegetables as they come to maturity should be secured. Save the most perfect and earliest for seed; as the frosts kill the tops of many kinds cut them off and clean away the haulm.

The orchard and fruit yard should be attended to; as the different fruits ripen, see that they are gathered carefully, and make a memorandum of the time of their maturity, that you may propagate such as are worthy, so as to have a regular succession. Destroy all fruit in which the larva of insects are deposited; this will in part prevent their increase. Spade up and loosen the soil around the fruit trees and put on a coating of manure; remove the bandage from trees that have been budded, if the buds have taken, if they have not, most kinds may be budded again with success. All these things may be done while the farmer is preparing for and depositing the seed for another harvest, and securing the fall crops.

The Beurre Clairgeau Pear.

A writer in the New England *Farmer* thus describes a new kind of pear which possesses some excellent qualities, and is one of the most promising that has been brought into the country for some years. It is of French origin, and was first introduced into Massachusetts in 1848. Its early bearing and wonderful productiveness make it a general favorite. It grows rapidly on either pear or quince stocks. On the quince it commences bearing the second year from the bud. One remarkable characteristic of this tree is, that nearly every blossom produces a perfect fruit, and the stem clings with such tenacity to the tree that it is seldom blown off by high winds. The writer says he raised a crop of this fruit two years ago, a part of which was gathered in October and a part in November. Those gathered first kept good till the 10th of January. When compared with the Burre D'Anjou, the result was in favor of the Beurre Clairgeau. The fruit is of the largest size. When grown on the quince, care should be taken that the tree does not overbear.

The Apple Crop.

As far as our observation extends, and from information derived from others, we think the apple crop will fall considerably short of an average one, and what there are is thought to be smaller than usual. If these are facts much care should be taken to save all the apples in as sound a state as possible; this *can only* be done by plucking the fruit by hand; fruit should never be shaken or pounded off; all that accidentally falls off ought to be carefully selected from the sound and marked for fall or early winter use. A vehicle having springs ought always to be used to convey fruit to market. Apples have already become a staple, thousands of barrels are sent west yearly, and fruit growers should see to it, that sound and perfect fruit only should be shipped.

Budding Peaches.

The success in budding peach trees deponds not so much upon the time when the work is done as it does upon securing the bud from winter killing. Of the thousands that have been budded under our observation, more than three fourths have been killed by the frosts of winter. The only remedy we know is to place the bud as low as possible, and in the fall draw up the dirt around the tree to cover the bud. Trees budded in September may have the string left on if it be of woolen yarn, as it should be. Early in the spring remove the dirt from the tree; the rain during one good shower will wash the dirt trom the bud; the string may then be removed, and when the buds begin to swell cut off the top above the bud.

Dioscorea Batatas.

We lately noticed in a garden at Grass Lake what was said to be a Chinese Potatoe. If we were to judge from its present appearance and dimensions, it had spent the best part of the season on a visit to China and now returned to spend the winter; it has just emerged into daylight; three or four leaves are to be seen and a stem that has already attained an inch in length, plainly indicating that it is a runner. We hope the remaining part of the season will be favorable for a full development of its huge dimensions. N

[Nevertheless, we advise friend ——— to give the plant fair play; if it is really the true *Dioscorea* of Decaisne, we are inclined to think it may turn out better than it now appears. Nearly all the past experiences we have read of, are similar to that described by Mr. Noble; and we have read of quite a number both French and English. The great difficulty and distrust which the plant has met with, is owing largely to the injudicious, mischievous efforts

of Mr. Prince to extol it beyond any vegetable production that has ever been grown since the garden of Eden, and with the expectations that the agricultural population were to take his hyperbole for good authority. At the same time while we reject his highflown asseverations, we cannot throw entirely aside the testimony of respectable writers and experimenters, nor the reports of committees who have had this plant and its habits and capabilities under consideration. We therefore say, give the plant fair play, saving all its produce for another years trial; and do not mind the good natured mockery, which would induce you to give the plant only half a trial. —Ed.]

The American Pomological Society.

This society will hold its annual exhibition at Rochester, New York, beginning Sept. 24 and continuing four days. Nearly all the States in the Union will probably be represented at this meeting. There will undoubtedly be a great gathering of fruits and of distinguished pomologists from all parts of the country.

No State is more deeply interested in this matter than Michigan, for we have progressed far enough in pomology to know that we have a soil and climate well fitted for the successful production of the finest specimens of fruits.

The following gentlemen have been appointed a committee to represent our State in the convention·

Chairman—Dr. D. K. Underwood, Adrian, Lenawee.

Linus Cone, Troy, Oakland.

T. T. Lyon, Plymouth, Wayne.

W. S. H. Welton, Grand Rapids, Kent.

J. T. Blois, Jonesville, Hillsdale.

The several members of the committee will be happy to receive and take charge of, for exhibition at Rochester, any specimens of the fruits of Michgan that cultivators may wish to send.

They would *particularly* suggest that unknown or unnamed varieties of *real excellence* should be sent with a consise statement of what may be known as to the origin of the fruit, its qualities, &c. Any specimens forwarded to J. C. Holmes, Secretary of the State Agricultural Society, or left with him at the society's rooms, over Palmer & Fisher's book store, Jefferson avenue, Detroit, will be taken charge of for the committee. The committee will probably meet at the Agricultural Society's rooms a day or two previous to the meeting of the convention.

In this connection we would remind the fruit growers of the State, of the Pomological Convention to be held at Jackson on the first Tuesday in September. We hope to see at this meeting a good attendance and a large collection of fruits. W. K. Gibson, Esq., of Jackson, is the Secretary of the Michigan Nurserymen and Fruit Grower's Association.

Strawberries.

BY JONATHAN HAUTBOY.

The present season is the time to set out new strawberry beds, if you would have them fruit during next summer. Of course, it must not be expected that beds set out this fall will fruit as plentifully as older ones, but if properly made, the returns, with ordinary care, will be far from unsatisfactory. Do not mind if your plot be not more than ten feet square, but be sure and have it. Have it first well dug, as deep as the spade will turn it up. Let the soil incline rather to sand than clay. A good light loam is the best. Cover the dug soil of your plot with the oldest manure you can procure to the depth of three inches or more, dig it in lightly, raking the bed thoroughly, and breaking overy clod as you go along. Then set out alternate rows of Virginia Scarlet, Hovey's Seedling, Burr's New Pine, if they are to be had in your neighborhood. The plants may be set six inches apart in the row, and the rows abot 18 inches asunder. If well attended and occasionally watered with a liquid manure, made from the soap suds and dish water used in the house, the bed will be covered with runners before frost. When the hard frost has set in, give the bed a slight covering of straw. This helps to save many of the younger plants, the roots of which are apt to be frozen out in the spring, by the alternate freezing and thawing. This straw can be raked off easily in the spring. Most cultivators do not think this necessary, nor do we in old beds; but in a bed that you want to coax along for next season, and get all the good out of you can, this light covering of straw, especially if there should be little or no snow, will be found beneficial. A bed twenty feet long, and ten feet wide, will need 250 plants, and if you follow our advice will give you all the strawberries a small family will eat. But don't think you can do this in dry hard tough clay, without manure, without sand, or without good thorough digging, and raking, to mellow the soil. For you can't do it, and neither could the most skillful of gardeners.

In the last number of Hovey's Magazine, he mentions several new English varieties, the plants of which he received from England last fall, and which he set out in beds to try their capacity to withstand this climate, and produce good fruit. This season he reports that they have proved so far to be valuable acquisitions to the strawberry family. One variety named the ***Admiral Dundas***, enabled Mr. Hovey to show the most remarkable specimens ever seen in this country. *Eighteen* of the berries weighed one

pound! and each measured from seven to eight inches in circumference. The new sorts he received were *Admiral Dundas, Sir Harry, Sir C. Napier, Omer Pacha, Scarlet Nonpareil, Crystal Palace.* They were received last year, "planted out in an ordinary piece of ground, not trenched or highly manured, and were allowed to run together in one bed; one object being to test them under common culture, convinced long ago, that if a strawberry will not do well in this way, it will never become a popular variety, no matter how fine it may be under extra treatment."

Mr. Hovey speaks well of all these varieties, but of the three first named, which are seedlings raised by the late Mr. Myatt, one of the most successful of English cultivators of this delicious fruit, he speaks with unqualified praise, and as if they would become real acquisitions to the growers of this fruit. There will be more heard of them another season. Meanwhile let us all endeavor to enjoy the choice varieties which the indefatigable nurserymen in our neighborhood place within our reach.

DAHLIAS.—As soon as the tops are destroyed by the frosts, cut them off about six inches high; after about a week dig up the roots whole, permit them to dry part of a day in the sun; attach a tally to the stem to designate the variety. They may be placed immediately in a cellar on a shelf where they will not gather moisture. Let them be examined often, and their position changed, if too dry, or too damp, always secure form frost.

BULBS.—All bulbs that have been taken up and kept dry may be planted out the last of the month. The soil shold be rich and mellow. A diversity of color in a bed shows to good advantage. Sticks may be placed by each bulb to designate the variety.

☞ The Journal of the New York State Agricultural Society, informs us that the committee appointed to report, relative to Matthews' curculio remedy, will have their report ready in the course of the season. So says one of the members of the committee.

CUCUMBER CATSUP.—Take twelve full-grown cucumbers, and lay them an hour in cold water. Then pare and grate them into a deep dish. Grate also six small onions, and mix with the cucumbers. Season the mixture to your taste, with pepper, salt and vinegar; making it the consistence of rich marmalade or jam. When thoroughly incorporated, transfer it to a glass jar or wide mouthed bottle; cover it closely, tying over it a piece of bladder, or covering it with cement, so as to be perfectly air tight. It will be found very nice when cucumbers are not in season, to eat with beef and mutton; and, if properly made, and tightly covered, will keep well. It should be grated very fine, and the vinegar must be of excellent quality, real cider vinegar.—*Miss Leslie's New Receipt Book.*

The Household.

"She looketh well to the ways of her household, and eateth not the bread of idleness."—Proverbs.

EDITED BY MRS. L. B. ADAMS.

Shadows.

BY MARIE.

The locust boughs were white with bloom,
A mine for the working bees;
The roses showered their rich perfume
On every wandering breeze,
And the thrush was whistling a blithsome tune
From the grove of maple trees.

The sky unrolled its banners blue,
And the air was fresh and sweet,
The brook was laughing as it ran
With the river tide to meet;
The wind bent down in shining waves
The broad green fields of wheat.

The joyous sunshine on our hearts
Threw shadows mournfully deep;
The fresh new beauties on every side
But made our eyes to weep;
For one we loved, with the waking spring
Had laid her down to sleep.

Where the earliest, warmest sunshine rests,
Where first the violets spring,
Where first the budding maple boughs
Their crimson tassels fling,
And birds returned from their winter flight
Their first glad welcome sing;

They laid aside the fresh green turf,
And made her a little bed;
And the sunshine lay on her folded hands,
And beautiful, golden head—
Our hearts and hopes and our fireside joys
We left with our only dead.

Days which the spring-time brings are rare,
And rich with light and bloom,
Yet over the earth and in the air
Is shadowed a heavy gloom,
For such was the time when our day of joy
Went out in the night of the tomb.

The "Fourth."—To the Little Farmers of the Household.

Dear little friends, would you not like to hear how Erny, Lulu, Willie and Mittie spent the "Fourth"? You know the "Fourth"—that is, the fourth day of July—is held by the people of the United States sacred to Liberty, which is Freedom, because on that day, eighty years ago, the people of the United States said they would have no one to rule over them, unless they chose him to do so; for they believed God had created all men equal, which means that one has as good a right to himself and the free gifts of nature, as another, and that no one has a right to take these from him; so for these eighty years, the Fourth has been called "Independence day"—and little boys have had their fire crackers and "big" boys have had their cannon crackers, and all have had celebrations, with speeches and music, with flags and dinners, and there have been rides, sails, picnics, and

all kinds of jubilees. Little girls and boys think it a very nice day, and many wish it would come twice in a year instead of once. I am sorry to say that many think our fore fathers did so much good there is nothing left for them to do; but this is not so. They did what came to them to do, and they did it nobly, but every year brings its own work, and while we thank our fathers for giving us an "Independence day", we must think what we can best do to be worthy of ourselves and them.

The children with their father and mother were to go among the Lakes in Oakland county. Can you tell which way that county is from you?

As we were to start early in the morning, every thing was got ready the night before, so the sun had just started on his long day's journey as we drove from the door. The morning was cool and it was delightful riding past fine farms and deep shaded woods fragrant with the dews upon them. The children were very happy; they talked, laughed, and sung, feeling almost as free as the birds wich sang so sweetly by the road side. On we went, over hills and across brooks, every where seeing beauty; and though the sun shone brightly it did not get too warm for us or for the horses. After traveling about sixteen miles we struck a wooded hill. Turning to the left over its brow we soon came in full view of Orchard Lake. It was a lovely sight to look across its bright waters to its orchard isle, and its fine sloping banks as they swept in an almost regular curve, on either hand, till lost behind its island. The smooth grass and overshadowing oaks, grew to within a few feet of the water, as it washed its rippling waves upon the gravelly beach. Erny sprang from the carriage, and, while the rest were alighting, pulled off his shoes and stockings and hurried into the water; but little Mittie dared not go to it. The water was very clear with a white sand bottom, and for many feet from the shore not more than two or three feet deep. There were two boats in which we could have rode to the island, but we were to spend the day with friends on Cass Lake, some two or three miles beyond, and we must go on; so picking up a bit of pearl and a few pebbles, and taking a draught of the crystal water, we rode back over the hill and taking the road we had left, wound round its east bank and soon had Pine Lake on our right, from which a small stream runs into Orchard Lake. We drove through this stream and into the Lake, which at first troubled Lulu, as she is quite a timid girl for one seven years old. As we drove on we lost sight of the Lakes behind the woods, which the children regretted for they wished to stay by them all day. Leaving the plain road and taking a by-way, we soon came in sight of Cass Lake, which is not so pleasant on the east, as the shore is marshy; but as it winds away to the north west, and sweeps round a jutting point to the south west, it becomes very lovely. On this point we found our friends.

Their situation is a lovely one, but like all new places needs much "fixi g up." Here the children were in great enjoyment; they had found little friends of their own age and a free, glad place in which to wander—now strolling over the grounds, picking berries, or walking the high banks, looking down upon the silvery waters, charmed by the whistling music of the winds sweeping through the tall pine trees; anon playing on the beach with the water washing over their feet. Did you ever hear the wind whistling through the fine leaves of the pine? So they wandered till the call to dinner.

Our good friends had let the birds and beasts and fishes live and have Independence day too, so our dinner was not served at great cost to them. The gunner's ball had brought no happy bird bleeding to the ground; no shining fish had been snatched by the cruel hook from its own joyous element; no beast from the fresh green fields had bled by the destroyer's knife; no, none of these, with their cruel wrongs, said "taste not;"—but we had pies, puddings, and cakes, made with fruit, milk and sugar—we had great piles of luscious strawberries and raspberries, the aroma from which filled the room with fragrance; and currants, with bread good enough for a king to eat; that is, good enough for boys and girls, who should have as good food as kings and queens, though it may not have cost as much—and we had lemonade for drink. It was a very nice dinner and a very nice day. They served dinner early for they knew our breakfast was very early. It had now grown very warm.

After talking, and reading, and walking in the shade for two or three hours, we went on a high point which divides the lake, where we separated into two parties, the gentlemen going one side further down, and the others farther up, where we went into the water and had a fine time. Lulu and her friend Mary were soon in; Mary could swim, dive or float as well as a duck; but though Lulu could do none of these, she could enjoy the water, which was not above her depth for five or six rods from the shore. We could not persuade Willie to go in, so his mamma carried him in and laid him down in the water, and soon he was as happy as any of them. Baby Mittie did not go in at all, as she was quite afraid; but she sat on the high bank and laughed to see the rest. After about an hour we were ready to go to the house, and I called Willie to come out; but he played away. Again I said to him "Willie, come we must go now," but he did not start, so I told him I should have to leave him if he did not come—but he was sorry to do so. Now Willie is a very good boy to mind, for one but four years old, but he did not like to leave the water, and he thought his mamma half playing with him. When we laugh at him for not going into the

water, he says "he didn't know it was so nice a place." When we reached the house, we found the gentlemen had been some time waiting for us; we then went to the garden, ate what raspberries we wished, returned to the house, took a lunch, and bidding our friends good bye, started for home. The sun was still hot, but our road lay along the north bank of Pine Lake, the fresh breeze from which, with occasional shade, made it quite comfortable. The view from this road is delightful. We called for a few minutes on friends living here, but had not time to stop long. A fine sail boat lay within a few yards of us but we had not time to enjoy its tempting offer, for we had some sixteen miles to travel and the sun was getting low, so promising ourselves and friends that we would visit them soon, and saying good bye, we continued our ride.

Presently the bank sloped to the water and we drove into the lake; crossing a curve, we left it, and, winding over a shady hill, lost sight of it, except occasional glimpses through the trees. Our ride home was through a more beautiful country than that through which we went, there being more woodland left on the roads, more and better farm houses, and the general appearance of the country more delightful. We saw other lakes off the road, one to the right the other to the left, but did not learn their names.

On we came; the sun sunk lower, the air became cooler, and Lulu and Willie were getting quite tired and sleepy. Papa said "Lulu looked like the withered flowers in her bouquet." Mittie had been sleeping and was now awake and lively; Erny stil kept at his talk and fun. The wild roses still bloomed by the way side, but the harebells and other beautiful flowers which we had gathered, were withered. As we came in sight of home, the sun sank from our sight, having beaten us some fifteen minutes in the days journey. As we drove again to the door we all felt as if we had spent a happy day; the children had been very good, and so, with all the beauty around them, very happy. Lulu and Willie went right to their beds. Mittie found her kittie and had a nice play with it and could not be got to bed till the last one.

The children still believe it the happiest "Fourth" they ever spent, only—"*They wish they had gone into the water before dinner !*"

Now dear little friends, hoping you had just as happy a day as we did, and that your next Fourth will be quite as happy, and that your parents will sometimes take you with them to the glad freedom of the woods and waters, I will say good bye to you, hoping to see or hear from you sometimes, as I like good children, and I think all the children of the *Farmer's* Household *are* good.

I will tell you what I do wish. I wish all of you, with your parents, and our dear friends who get up the *Farmer* for us, could get together for a grand Pic Nic, at the nicest place for it in Michigan. Should we do so, I think we should have a *grand*, happy time of it. Do you not think so ?

MRS. E. P. FAIRMAN BRADNER.

☞ We have a long letter from Katy Wildwood, on the subject of Dick Sherwood's troubles ; as it was written some time ago, and is of the same tone as those already published, it will not be necessary to give it entire now. We take pleasure, however, in publishing the concluding paragraph, as it contains suggestions and truths which cannot be too often repeated, or too deeply impressed on the minds of those upon whom depends the happiness of home. In speaking of the qualities desirable in a good wife, she says: "If Dick should succeed in finding such an one as he wishes, I fear that even she would have to advocate progression to him, before their home would have other than a forlorn appearance ; for woman, with all her skill and power, cannot do *all* to beautify and make home happy. She may plant, cultivate, prune and train, and endeavor to rear in perfection all those lovely qualities and pleasing attractions that serve to make the aggregate of home happiness, and if she continually finds the branches she has most cherished lopped off, no harmonizing spirit with hers, no love for the beautiful, the artistic, no sympathy with the rural sublimities of nature which tend to lift the soul of man from sordid selfishness to a higher tone of feeling—if she find not these, then, though she may possess all the virtues of our grandmothers, there must be a failure at *home*—an hour will come when that sacred spot will be desolate, dreary, unsightly and forlorn. Therefore let me entreat those contemplating a settlement for life, to look to the great ends to be attained, and which are in some measure being realized by the advancement of the human race, and the promotion of social interests. KATY WILDWOOD."

☞ To show our little enigma manufacturers how very easy it is to make mistakes, we copy part of a letter written by Sarah E. Brunson, of Victor, about Enigma No. 6, which appeared in August. She says: "I notice that M. E. H. has made three mistakes. In one instance she (or he) says, 'My 4, 5, 6, is a fluid,' that would make the word *sop*, and I think it means *sap*. Another is where it says, 'My 8, 5, 10, 4, is term applied to a woman.' These letters would read *loss*, when it means *lass*.' The third one is where it says, 'My 1, 5, 6, is an article of wearing apparrel,' which is *cop*, when *cap* is meant. This spelling carries the idea that Cassopolis is spelt Cass-*a*-polis, as that is the answer to the enigma."

Theresa, of Saline, also says that Little Maude made some mistakes in spelling with her figures.

Now, as we have said before, we have not time to revise the enigmas sent us, but publish them as they are written, read the proof carefully by copy, and then leave it to the bright eyes and eager minds waiting to decipher them, to find out the errors. And depend upon it, they will be

found out; so the writers must have a care if they would keep their reputation as good spellers. Use good black ink too, and make your figures plain, so as not to puzzle the printer. We have one or two long enigmas written with very pale ink, and such a spattering pen, we think the writers would have trouble to make them out themselves, and dare not trust them in the printer's hands for fear of some unpardonable blunders.

G. C., of Augusta, also discovered the mistakes in M. E. H.'s enigma, and he suggests, too, that it would have been better in No. 8 to have designated the pine as a tree instead of a vegetable. He says that *Llama*, in his own enigma, in July, was so spelled intentionally, as he found it so in the Naturalist's Library. His Zoological enigma is rather long, but we will try to find room for it some time.

Hattie B. says her mother thinks she is rather too small to solve enigmas, because she is only eight years old. Never too small, Hattie, when you can do as well as you have this time.

Sarah's shall appear soon; also G. D. M.'s. Several others have been received, but too late to notice this month.

Enigmatical Charade.

My first in air is always found,
Yet prisoned in the heart of earth;
And in my second's changeful sound
Are heard the notes of grief and mirth.
Without my third, the human mind
Could no existence claim,
And man himself, without its aid,
Would be deprived of form and name.
My fourth's an element of fire,
Yet never grew in coal or wood;
My fifth for heaven has no desire,
Yet dwells in souls of the good.
Without my last, I once had fame,
As mistress of the eastern world,
Proud kingdoms at my bidding came,
And at my feet their banners furled.
My last, though it brings me two syllables more,
And booms on the ear in the cannon's loud roar,
Though in honor with heroes it dwells evermore,
And is heard in all oaths that a trooper e'er swore,
Makes me out but the name of a man or a town,
And the one that can't guess me now sure is a clown.

***

Enigma No. 9.

I am composed of 14 letters.
My 8, 11, 14, is an island in the Irish Sea.
My 8, 11, 4, 6, 11, is an island in the Mediterranean Sea.
My 9, 3, 13, 7, is an island in the Archipelago.
My 5, 4, 12, 11, is an island in the Mediterranean Sea.
My 7, 5, 9, 3, 4, is an island in the Baltic Sea.
My 9, 7, 7, 4, 7, 7, is an island in Malaysia.
My 11, 12, 11, 3, 7, is one of the Bahamas.
My 10, 1, 12, 11, is one of the West Indies.
My 4, 7, 12, 7, 9, is an island in the Gulf of Mexico.
My 9, 6, 11, 2, 14, 5, is an island in Brazil.
My whole is the most popular work of the age.

FRANKIE C. McALLISTER.

Locust Grove.

Enigma No. 10.

I am composed of 10 letters.
My 8, 2, is a river in Virginia.
My 8, 1, 5, 6, is a mountain in Texas.
My 3, 2, 9, 9, is a harbor on Long Island.
My 2, 6, 10, is a cape in Massachusetts.
My 2, 6, 10, 2, is a river in Virginia.
My 4, 9, 8, is a spring in Arkansas.
My 3, 10, 4, 1, is a hill in Maryland.
My whole is the name of a city.

THERESSA.

Saline.

Answers to Enigmas.—No. 6, CASSOPOLIS; No. 7, GEORGE WASHINGTON; No. 8, THE PRINCIPLES OF CHEMISTRY. Answered by R. S. Mason, Detroit; Theresa Moore, Saline; G. D. M., Romeo; J. W. Webster, Napoleon; G. C., Augusta; Hattie B. and Sarah E. Brunson, Victor; Emma F. Brown, Locust Grove; A. B. C., Carlisle, Pennsylvania.

MICHIGAN FARMER.

ROBERT F. JOHNSTONE, EDITOR.

DETROIT, SEPTEMBER, 1856.

State Fairs for 1856.

Vermont	Burlington	Sept. 9—12
Canada East	Three Rivers	Sept. 16—18
Virginia	Wheeling Island	Sept. 17—19
Canada West	Kingston	Sept. 23—26
Ohio	Cleveland	Sept. 23—26
Am. Pom. Society	Rochester, N. Y.	Sept. 24—30
Michigan	Detroit	Sept. 30 & Oct. 1—3
New York	Watertown	Sept. 30 & Oct. 1—3
Illinois	Alton	Sept. 30 & Oct. 1—3
Pennsylvania	Pittsburg	Sept. 30 & Oct. 1—2
Kentucky	Paris	Sept. 30 & Oct. 1—5
National Agricultural Show	Philadelphia	Oct. 7—11
California	San Jose	Oct. 7—9
Wisconsin	Milwaukee	Oct. 8—10
Iowa	Muscatine	Oct. 8—10
New Hampshire		Oct. 8—10
North Carolina	Raleigh	Oct. 14—17
Indiana	Indianapolis	Oct. 20—25
Georgia	Atlanta	Oct. 20—25
Maine		Oct. 28—30
Ken. Ag. & Mech	Lexington	Sept. 9—12
New Jersey	Newark	Sept. 9—12
North Kentucky	Florence	Oct. 7—11
Connecticut	New Haven	Oct. 8—10
Alabama	Montgomery	Nov. 11—14

Michigan County Fairs for 1856.

Kalamazoo	Kalamazoo	Sept. 24 25 & 26
North Lenawee	Tecumseh	Sept. 11
Livingston	Howell	Oct. 8 9 & 10
Ingham	Mason	Oct. 14 & 15
Branch	Co'dwater	Oct. 7 8 & 9
Kent	Grand Rapids	Oct. 14 15 & 16
St. Joseph	Centreville	Oct. 13 & 14
Macomb	Armada Corners	Oct. 9 & 10
Oakland	Pontiac	Oct. 15 16 & 17
Eaton	Charlotte	Oct. 15 & 16
Allegan	Allegan	Oct. 8 & 9
Calhoun	Marshall	Oct. 7 & 8
Jackson	Jackson	Oct. 8 9 & 10
Washtenaw	Ann Arbor	Oct. 7 8 & 9
Shiawassee	Corunna	Oct. 8 & 9
Monroe	Monroe City	Oct. 8, 9 & 10

State Fair.

The Eighth Annual Fair of the State Agricultural Society will be held at Detroit, September 30, and October 1, 2 and 3. The Fair will be held on the grounds known as the Detroit Course; this location is farther from the center of the city than the site upon which the Fair has been held, but there were many considerations that induced the Executive Committee to decide upon locating on that ground. It is well known that the proprietors of the Course have for several years made it a point to hold their fall races upon the days of holding the Fair, to the no small annoyance of the Society. The Executive Committee having obtained full control of the grounds, and that without charge, the Fair will be held there wholly to the exclusion of the usual races. The grounds being suitably fenced, the cost of fitting up will fall far short of the expense of former years. The enclosure contains forty acres, giving ample room for the exhibition, and for the admission of vehicles with passengers. It is upon the bank of the river and easy of access for boats or carriages. Steamers will run to and from the ground during the Fair, carrying passengers up and back for 12½ cents, or 6¼ cents each way, giving a good

view of the river, Lake St. Clair and the city of Detroit. The location is in every respect a beautiful and a desirable one.

The grounds are now being fitted up and will be ready in season for the fair. From what we learn from different parts of the State, the coming exhibition bids fair to surpass in interest the best exhibition we have yet had. We hope to see the forty acres well filled with stock, articles, and spectators.

Cattle Sales at the State Fair.

We call attention to the advertisement of the sale of improved shorthorn stock at the State Fair, by J. B. Crippen, Esq. That the State Fair, is just the time and place to make such purchases and sales, we have always been of the opinion,and if our State fair has been more of a place for exhibition than for sale, it has been more the fault of the members than of the managers, who have always afforded every opportunity and facility for such transactions. Mr. Crippin in his letter desiring us to make the announcement of his determination to sell, expresses so fully all that we could say in support of this measure that we quote his own words:

"Although so far as I am able to learn, this course has not been pursued by any breeders in the State, it seems to me an eminently fitting time for them to offer for sale such animals as they may wish to dispose of. It occurs at a season of the year when farmers generally are able to estimate their ability to increase or change their stock; the best animals of the state are then brought together, enabling one to form a much more correct estimate of value than when an animal is examined alone; and it is a time when each one of us should get some new ideas of *improvement*. Believing as I do that the general prosperity of the State not only warrants but requires such a course on the part of breeders, and having confidence in the merits of the animals which I shall offer for sale, I propose to give the plan a "*try*" hoping that it may succeed sufficiently to encourage others to "do likewise."

The animals offered by Mr. Crippen are of good blood, and their pedigree will be found in the last volume of the Michigan *Farmer*.

Turning Under Indian Corn.—Mr. N. F. Sands, of Jonesville, writes to the *Country Gentleman* that he found by experience in the spring of 1851 that yellow dent corn,allowed to grow till July and then rolled and plowed under, was a most excellent fertilizer. Thirty days after the cornstalks had been plowed under to the depth of eight inches, hardly a vestige of them could be discovered, the decomposition of them was so rapid. Turnips grew remarkably well on this soil, two acres producing 1,600 bushels.

Jonathan Thorne's new Importations.

In the last number of the *Farmer*, we copied from the *London Agricultural Gazette*, the measurement of a Short-horn bull, named Grand Duke 2nd. At the time this was published we did not know that Grand Duke 2nd had been imported by Mr. Thorne, of Thornedale, at a cost of $5,000, to supply the place of Grand Duke who has become disabled. Mr. B. P. Johnson says, he thinks Grand Duke 2nd and Neptune, both of which have recently been imported by Mr. Thorne, are decidedly superior to Grand Duke himself, and Mr. J. wonders that Grand Duke 2nd should have been permitted to leave England, as he doubts if his equal of his age is left behind. Of the cows imported by Mr. Thorne all are in fine breeding condition. When selected they were the very gems of the English herds from which they were taken, and the produce from them shows that their good qualities are likely to be perpetuated here in all their excellence.

Mr. Thorne purchased at the sale of Sir Charles Knightly, in April last, four cows and heifers, whose arrival is daily expected. This addition will make the female department of his herd the richest and most valuable of any in this country, and probably its superior does not exist anywhere.

Marl

We have lately received a letter from C. Crane, of Phelps, Ontario county, New York, making some inquiries and suggestions relative to the nature and uses of marl. As this is an important and prevailing element in the composition of Michigan marshes, we have always made it a point to give all the information concerning it that we could through the *Farmer*. The plan spoken of by Mr. C., of mixing muck with marl and barn yard manure has been frequently recommended, and we refer him to remarks in the July number upon the subject, at the same time calling attention to the communication in the present number on the Analysis of Marls, by Professor Fisk, of the State Normal School, at Ypsilanti. This article is one of importance, as giving our readers who are interested in the marl question, an opportunity to judge, by comparison with other papers we have published, of the constituents and value of this substance, and also to understand how and where to use it to the best advantage.

Washtenaw Agricultural Society.—The 8th annual fair of the Washtenaw Agricultural and Horticultural Society will be held in the city of Ann Arbor on Tuesday, Wednesday and Thursday, Oct 7th, 8th and 9th, 1856. R. F. Johnstone, editor of the *Michigan Farmer*, will deliver the address. L. Davis, Secretary.

Burning Marl Lime.

Mr. N. Godfrey of Vergennes, Michigan, writes to us that he has had some experience in preparing marl lime, and that the method he has adopted for the manufacture of it, is to dig the marl, and place it in a pit or vat, such as is used for a tread for clay in the manufacture of brick, when he has it trod with oxen; he then moulds it into rough blocks, and lets it dry; when dry, build the blocks into a kiln, leaving a vacancy between each one for the circulation of the heat. He then burns this lime as you would common lime stone, and about the same length of time, and an article of fair quality is made.

[We thank Mr. Godfrey for his information, and have no doubt it will prove very useful to many who have lime at their doors, but either do not know it or like Mr. Jones, have not had any chance to learn how to use what they know they have. This is another instance of the utility of the *Farmer* in enabling one farmer to enquire and another to answer with an experience which is valuable to all. No other agricultural periodical can supply its place in this respect.—Ed.]

Fourth National Exhibition of the U. S. Agricultural Society.—The National Show is to be held at Philadelphia for this year, commencing Tuesday, Oct. 7, and ending on the 11th. The entrance fees for stock are $10, for those competing for premiums of $200 and over; five dollars for $100 and under $200, and three dollars for all under $100. For sheep and swine the entry fees are $1,50; poultry 50 cents per coop; horses competing premiums in speed amounting to $200 will be charged $20 entrance fee. The whole list of premiums offered is contained in a pamphlet of twenty-six pages, and ranges from two dollars to two hundred dollars.

Barometers and their uses.—Mr. L. Woodruff, of Ann Arbor, who manufactures barometers or weather gauges of the very best quality, and who has paid much attention to perfecting and improving the instrument, will furnish us an article for the next number, which will embrace the history of this important instrument, an account of its uses, and also a discussion of the atmospheric changes foretold by its movements. As Mr, Woodruff is himself a meteorological observer of some experience, *in this climate*, his remarks in counection with the use of the barometer, we know must prove of much value to intelligent and scientific farmers, and will be read with great satisfaction.

☞The editor of the South Carolina *Agriculturist* inclines to the opinion that the North Devon breed of cattle are best suited to the agricultural wants of that State.

☞The excellent letter of C. D. Addison, is received. It shall appear next month.

County Societies.—Owing to the neglect of the secretaries of county agricultural societies, we have not heretofore been able to give a complete list with the time and place at which the several fairs are to be held. The secretary of the Oakland ounty society, was the only one who responded to our call in the July number, so that in August the list was meager enough. This month we present a more complete one, which we have gathered from our exchanges from time to time. Secretaries of these Societies should understand that it is for the interest of their county exhibitions to have public notice given at as early a date as possible, of their time and place of meeting; for many who have stock or implements to exhibit and want to make their arrangements to attend several in succession, are preventd from doing so by want of information from the source where they naturally look for it—the pages of the *Farmer*. We have had many applications for such information, and would gladly have answered more fully than we have been able to, had the secretaries put it in our power to do so. We think the list given in this number includes nearly, if not all the county fairs of our State for this season.

B. J. Bidwell's Horses.—We call attention to the advertisement of B. J. Bidwell's horses. We have lately seen the animals mentioned in the advertisement. Mr. Bidwell has three horses, with either of which any breeder might be satisfied. *Bussorah* is called a Morgan horse, having been sired by Gen. Gifford, and his dam was the Lady Howland mare; whose dam was from old imported Messenger. Bussorah is a beautiful bay, having all the lofty style of carriage which is a distinguishing characteristic of the Morgan horses. He is of good size, being, as near as we could judge, about sixteen hands high. His body is very round and compact. His back is remarkably short, and his hind quarters beautifully rounded. His action is graceful, free and easy.

General Gifford, jr., is a dappled chestnut, not so lofty in carriage, nor so showy in style as Bussorah. He has a fine head, good shoulders and well set limbs. He is rather longer bodied than Bussorah, and his hind quarters hardly so beautifully formed. His action is hardly so lively; but he, likewise, is of good size.

Mr. Bidwell also owns another horse, which pleased us very much, named *Toronto*. He belongs to the Norman stock, and is out of the celebrated trotting stallion St. Lawrence. This horse has a strain of blood in him equal to that of some of the best known trotters in the country. He is dark in color, though not quite black; and is one of the most compact horses we ever saw; every point about him giving promise of great speed and bottom. His fine head, strong neck, powerful shoulders,

round body, broad loin, and square quarters, together with his small, neatly formed limbs, and heavy joints, mark him as an extraordinary animal. We have seldom seen one that pleased us better as a horse for all work. Though but fifteen hands high he weighs over eleven hundred pounds. To cross with large, loose formed mares, he would prove a most valuable animal. Mr. D. M. Uhl, of Ypsilanti, has a pair of colts from him which we believe he will exhibit at the State Fair.

Mr. Bidwell gave us to understand that he meant to be at the State Fair with these three horses. They will make formidable competitors in some of the classes.

☞ The Michigan *Farmer* will as usual have an office on the State Fair ground, where subscriptions will be taken, and where we shall be glad to see our friends from the country who may wish to make our acquaintance, to renew their subscriptions, or to settle up old accounts. We shall also be pleased to see them at any and all times, before and after the Fair, at the *Farmer* office, 212 Jefferson Avenue.

An Inquiry.—M. Bull, of Franklin, writes, "This morning, on taking cream from a pan of sweet milk, I was not a little astonished and surprised to find in it something resembling what children call hair snakes, which are found in water during the summer months. Of these there were several. They were black, and about three inches long, They seemed to be in their element, sporting around the pan like larger snakes in water. The walls of the cellar are laid with lime mortar, the bottom is cement, the cellar is well ventilated, and always perfectly dry. The pans and benches are always kept well cleaned and perfectly dry. Whence the origin, and what the nature of these specimens of the serpent tribe, I refer to you."

[The appearance of these snakelike animals in but a single pan of milk, would seem to indicate that they had come there by some accident, or freak of nature, which, at this distance, it would be impossible to explain. It is probable they were the young of some larger species, and owing to favorable circumstances, had just been developed from the egg. Had they come from the cow, or been in the milk, they would probably have been found in more than a single pan, nor is it likely that they would have passed through the strainer.—Ed.]

Cotswold Sheep.—It will be noticed that Mr. Menzies, of Amherstburgh, offers for sale some very valuable Cotswold sheep. The Cotswolds are a larger sized sheep than the Leicester, have shorter staples of wool, and are also considered more hardy, and capable of thriving better on common fare. These sheep, when from fifteen to eighteen months old weigh, in dressed quarters, from 20 to 30 pounds. The wool is coarse, and clips from 6 to 8 pounds. Of late years great attention has been given to the improvement of this breed, which is a favorite for choice mutton.

☞ Mr. Baldwin wishes us to correct one or two errors which occurred in printing his Jottings of last month. The amount of wheat lost by Mr. Conklin in the burning of his barn was 100 bushels, not 1,000. And it was *Mrs.* O. Hulett who gave him the information about raising turkeys. She had the care of them, and, as Mr. B. justly remarks, she should have the credit of the information.

Stump Machine.—H. Post, of Victor, writes to know the price of the stump machine described in the July *Farmer*. We did not give the price then, because we considered that the business of the proprietors to make public by advertising. By reference to their handbills we find that machines are offered at from $75 to $200, according to the size and power required.

Multicole Rye.—The advertisement for Multicole or Mammoth Rye was received too late for the August number, and we therefore call attention to it in this issue.

Ide's Grain Drill.—It will be noticed that Mr. M G. Peck of Pontiac, has become the agent in this State for Ide's Grain Drill, and that its utility is endorsed by Mr. Charles Baldwin, of Oakland Co. On all land cleared from stumps a drill ought to be used in sowing of seeds not only because, if the machine is a good one, there is a great saving of seed, but also because the grain is more evenly sowed, and better covered, and in general, it will resist the effects of frost better.

Cyclopædia of Modern Travel; *A Record of Adventure, Exploration, and Discovery for the last fifty years; Prepared and Arranged by Bayard Taylor.*

Specimen numbers of the above work have just been issued from the publishing house of Messrs. Moore, Wilstach, Keys, & Co., Cincinnati, Ohio. It is a splendid volume, comprising about 1,000 pages, handsomely illustrated with maps and engravings, and must be considered as one of the most valuable acquisitions to modern standard literature. The name of Bayard Taylor, as compiler, is a sure guaranty that it is a work of more than ordinary interest, and the names arrayed in the table of contents show how rich is the mine of historic and biographic lore to which he has had access. Beginning with the life and travels of Baron Humboldt, the compiler goes through a succession of fifty-five narratives and biographies of the most adventurous and successful travelers who have left their exploits on record since the beginning of the present century, and closes with the exploration of Loo-Choo and his own report of that expedition.

The work, we believe, is to be sold by canvassing agents, and we commend it to all who would make a valuable addition to their libraries of family reading. For further information in regard to its contents we refer to the advertisement of J. K. Stickney, agent, in this number of the *Farmer*.

The Markets and their Prospects.

During the month just past, there has been much inquiry as to whether there would be much change in the prices of produce Our markets at the west, depend so much on the eastern markets, and the latter upon the European, that little can be said with any degree of certainty until it is known whether there will be in England, France, and the countries bordering on the Mediterranean and Black seas, fair average crops. England, even with a full crop, now needs annually, from twenty to thirty millions of bushels of breadstuffs, over and above her own production. The agricultural reports for the month of July, and up to the middle of August from abroad, speak very briefly of the crops. In the south of England, the wheat crop had been secured, and had been found most abundant; the reporter for the Farmers' Magazine, says: "we feel justified in stating that the return this season will be decidedly larger than in 1855. The amount of land under wheat culture is, perhaps, the largest ever known." The same report says: "The stocks of wheat in farmers' hands, are evidently reduced to a low point, growers having shown some activity in getting rid of stock, owing to the prospects of steady imports from abroad, and a good harvest at home. That wheat has seen its highest range of value, no doubt can be entertained, even though we shall commence the consumption of the new crop, with an unusually small supply of old wheat on hand." The reports from the grain-growing districts of Frrnce are likewise encouraging. The inundations having only affected lowlands devoted to the growth of hemp, linseed, beets for sugar, and such kinds of produce as are not used in manufactures. The only country along the Mediteranean where a short crop has been reaped, is Naples. The Danubian Provinces, and Southern Russia are ready to pour out not only the accumulations of past years, but also a very abundant crop of the pesent year. Northward, along the Baltic, and the rivers which enter into it, the crops, although promising well, have not yet been secured. "Still," says the Mark Lane Express, "from the increased consumption, and the activity in all kinds of business, enabling the population to keep in circulation a large amount of money, the farmers need not fear that low prices will prevail."

The wheat crop of our own State though excellent in quality and quantity, is extremely light, and many have expressed their opinion that it does not exceed an average of from eight to ten bushels to the acre. We do not put it so low as that, but admit that the total crop of the State will not reach anything like an average. The accounts from other States, however, show better; and Illinois, which is generally first in market, is pouring eastward very large quantities of wheat. Wisconsin and Canada are getting ready to do the same. The prices, therefore, have fluctuated, and for the month the general tendency has been downward. Flour, of good country brands, sells at 6 25 to 6 50. Family flour at 7.00 for very extra from the city mills. Wheat now ranges at 1 30 to 1.35 in Detroit; in New York it reaches from 1.60 to 1.65. Corn looks well, all through the southern part of the state, but the drouth in the northern counties has been so intense, as to cut it and the potato crop to the ground. It sells at fifty to fifty-five cents per bushel. Oats are a good crop, and plenty at declining rates, which may be better by and by. The price is thirty cents. Barley is worth 1.75 per 100 pounds. Beef on the foot, brings three to three and a half cents. Sheep ought to be a good price, with mutton retailing here at eight to ten cents per pound. Good wethers are worth 2.00 to 3,00, according to weight and quality. Hogs are selling at 6.00 per 100 weight. Poultry retailed at twenty-five to thirty cents each. Turkeys scarce and high. Butter, fresh and good, seventeen to twenty cents. In the firkin, fourteen cents. Cheese ten cents. Eggs sixteen cents. Hay, common, 6 50 to 7.50 per ton. Timothy 8.00 to 10.00. Clover seed sells at 7.50 to 8 50 per bushel. Timothd at 3.00 to 3.50. Plaster at the old rates. Apples, green, at 50 and 60 cents per bushel, with ready sale.

In wool, we notice, that the present rates are firmly held, while prospects are favorable for an advance during the fall. Foreign wools, however, are not so high, and there has been decline both in the English and continental markets, owing to the large receipts of fine wool from Australia. The range of prices is from 37½ to 45, for half to full blood Merinoes. The coarse and rade wools are worth 30 to 35 cents.

Michigan Stock Register.

Devons.

No. 14.—WALTON—Calved April 20, 1856; bred by, and the property of Chas. Betts, Burr Oak, Michigan. Got by Joshua, he by Young Duke of Devon, and he by Old Duke of Devon, imported. Dam, Jenny; out of Harriet; out of Old Cherry, imported.

No. 15.—MICHIGAN—Calved May 7, 1856; bred by, and the property of Chas. Betts. Got by Joshua, as above. Dam, Mariah, (by Zack Taylor,) out of Josephine Lady and Old Deven, imported.

A NEW CORN CRUSHER.—The "Star Corn and Cob Crusher," is the name of a new and powerful iron mill, which can be used to crush feed for stock. The agent for this City and State, is F. F. Parker. We have not yet seen it in operation, but from inspection and the testimonials accompanying it, it is entitled to a fair trial.

THE SCHOOLFELLOW.—This is a beautiful little Monthly for Children; full of instructive and entertaining reading and embellished with engravings. We are sorry to have missed several numbers, this summer, as the children feel lost without its regular visits, and want the volume perfect for binding. It is published by Dix & Edwards, New York, and for sale by J. A. Roys, Detroit, at 10 cents per number.

Meteorological.

REVIEW OF THE WEATHER FOR JULY, 1856.

BY L. WOODRUFF, ANN ARBOR.

Thermometer at.....	7 A. M.	2 P. M.	9 P. M.
Highest tem. in m.....	77° (17th)	94° (16th)	81° (16th)
Lowest do do.....	59° (20th)	74° (26th)	59° (1st)
Average.....	66.6	83.3	70.1

Monthly mean..... 73.4

MONTHLY VARIATIONS.

Greatest daily mean	81.3°
Least	64.6°
Greatest daily range	30
Least	7
Clear days	21
Part clear	5
Cloudy days	5
Days on which rain fell	10
Total amount of rain	4.412 inches.

WINDS.

W. 3 days; N. 3 days; E. 2 day; S. 4 days; S. W. 7 days; N. W. 3 days; N. E. 4 day; S. E. 5 days.

REMARKS.

The temperature was uniformly high throughout the month, reaching 90° and upwards, on 7 days, and rising above 80 on all but 6 days; very copious showers fell on several days, and vegetation has suffered little if any from drought. The heaviest rains occurred on the nights of the 14th and 28th. There was thunder on 12 days, and incessant lightning for 3 or 4 hours on the night of the 14th. The highest barometer was 29.44 on the 23d and the lowest 28.79 on the 12th.

MOUNT HOPE NURSERIES.

ELLWANGER & BARRY,

Rochester, New York.

FRUIT AND

ORNAMENTAL TREES

ELLWANGER & BARRY have the pleasure of announcing to their customers and the public in general that they have now on their grounds for the ensuing fall trade, a very large and complete stock of Fruit and Ornamental Trees, embracing

Standard and Dwarf Apple Trees.
Standard and Dwarf Pear Trees.
Standard and Dwarf Cherry, Plum, Peaches, Apricots, Nectarines, &c.
Quinces—Large Orange, fine grafted plants.
Gooseberries—Of the best sorts, a large stock.
Currants—Including the newest and finest sorts; upwards of 300,000 plants.
Raspberries—Including Brinckles Orange, and several new and fine everbearing sorts.
Blackberries—High Bush and New Rochelle, or Lawton, a large stock.
Besides Walnuts, Chestnuts, Filberts, and all other fruits usually cultivated.
Grapes—Native and Foreign, in large quantities.
Strawberries—All the best, New and old sorts.
Rhubark, Asparagus, &c.

Ornamental Trees, Shrubs, &c.

Deciduous Ornamental Trees, for Streets, Parks, Lawns, Cemeteries, &c.

FLOWERING SHRUBS.

Roses—An immense collection old and new, covering over FIVE ACRES of land.
Evergreen Trees, including *half a million* of Norway Spruce of all sizes
Weeping Trees, everything desirable.
Double Dahlias and Bulbous Roots.
Hedge Plants, of all sorts.
Stocks and Seedling Plants for Nurserymen.
Green House and Bedding out Plants, a full assortment.

Nurserymen and dealers dealt with on the most liberal terms, and Amateurs orders attended to with great care. Packing done in the most thorough and skilful manner and with the best material For full particulars we refer you to special advertisements and to the following Catalogues sent gratis to all who apply and enclose a stamp for each.

No. 1. Descriptive Catalogue of Fruit.
No. 2. Descriptive Catalogue of Ornamental Trees, Shrubs, Roses, &c.
No. 3. Catalogue of Dahlias, Green House and Bedding Plants.
No. 4. Wholesale, or Trade List.
No. 5. Supplemental Catalogue of Fruits.

ELLWANGER & BARRY,
Mount Hope Nurseries, Rochester, N. Y.

September, 1856.

BULBOUS FLOWER ROOTS

WE have now on hand a large stock of choice Bulbs, and are receiving a new invoice from Holland, consisting of the finest

HYACINTHS. Double and Single.
TULIPS of all the Classes.
CROWN IMPERIALS
CROCUS, JONQUILS, NARCISSUS.
JAPAN and other LILLIES.
GLADIOLUS, a superb collection of new and all the older sorts, &c, &c, &c.

We are prepared to furnish all, at low rates, in large or small quantities, and solicit orders during the month of September, before the business season opens.

☞ Priced Catalogues forwarded *gratis*.

346 ELLWANGER & BARRY,
Mount Hope Nurseries, Rochester, N. Y.

September, 1856.

EVERGREEN TREES
AT LOW PRICES.

MESSRS. ELLWANGER & BARRY solicit the attention of Nurserymen, Planters and Dealers in Trees, to their immense stock of Evergreens by far the largest ever offered in the United States. They are prepared to furnish the following at the extremely low prices annexed.

☞ All frequently transplanted and, therefore, finely formed and well rooted.

	per 1,00	per 1 000
Norway Spruce 5 feet	$60 00	$500 00
" " 4 "	40 00	350 00
" " 3 "	25 00	225 00
" " 2 "	18 00	150 00
" " 1½ "	15 00	120 00
" " 1 "	10 00	70 00
" 4 years Seedlings, 2 years transplanted		30 00
" 1 year, from Seed bed		10 00
Scotch Pine 12 inches	10 00	80 00
" " 9 "	8 00	60 00
Austrian Pine 10 to 12 inches	12 00	90 00
" " 6 to 9 "	10 00	80 00
Arbor Vitae Siberian 3 feet, beautiful plants	40 00	
" " " 2 " " "	30 00	
" " American, bushy, for hedges 2-2½ ft	8 00	60 00
" " " " " -1½ ft	5 00	40 00
" Golden, a beautiful tree, 1½ to 2 feet, $9 per dozen.		

	per doz.
Himalayan Spruce, (Abies Morinda,) 2 to 3 feet	$10 00
Pinsapo Spruce, (Abies Pinsapo,) fine broad plants, 10 in. high	9 00
Chili Pine, (Auracaria imbricata,) in pots, 12 to 18 inches	9 00
Deodar Cedar, 2 to 3 feet, beautiful plants	9 00
African or Silver Cedar, (C. Africana, or Argentea) beautiful 1½ to 2 feet, (more hardy than Deodar,)	9 00
Japan Cedar, (Cryptomeria) beautiful Seedlings in pots 3 feet	10 00
Funebral Cypress, (Cupressus Funebris,) in pots 1 foot	5 00
Twisted or Bhotan Cypress (C. Tortulosa,) in pots 1 foot	4 00
Yew English 1½ to 2 feet	4 00
" " 1 "	3 00
" " 6 inches	2 00
" Golden (Elegantissima 9 to 12 inches	5 00
" Irish or upright 1½ to 2 feet	5 00
" " " 1 foot $3 per doz. $18 per 100	
" " " 6 inches $2 per doz $12 per 100	

For further details we refer to our wholesale Catalogue, sent gratis to all who apply and inclose a stamp. Address

ELLWANGER & BARRY,
Mount Hope Nurseries, Rochester, N. Y.

TO NURSERYMEN.
STOCKS AND SEEDLING TREES.

WE solicit the attention of the Trade to the following articles which we are prepared to furnish this fall at the annexed low rates—all are exceedingly vigorous and well grown.

	per 1,000
Magnolia Acuminata 3 year Seedings 2 feet	$50 00
" " " " 1 "	40 00
Elm, American 2 year Seedlings	15 00
Horse Chestnut, 3 year "	60 00
" 2 " "	40 00
Oak, White American 3 years	20 00
" Red " 3 "	20 00
Butter Nut, 3 year Seedlings 2 to 3 feet	40 00
Black Walnut, 3 yr " 2 to 3 "	40 00
Maple, Silver, 2 " "	12 00
" Scarlet 2 " "	20 00
" Sugar 1 " "	6 00
" " 1 to 2 feet	30 00
Larch, European 2 feet	50 00
Catalpa " 1 foot	40 00
Mahonia, or Ashberry, one of the finest Evergreen Shrubs, 2 year Seedlings	50 00
" 1 year Seedling	20 00
Plum Seedlings, 1 year, native	10 00
Pear " 1 "	10 00
Cherry, Mazzard 1 "	4 00
" Mahaleb, Strong	15 00
Manetti Rose, Stocks, Strong	40 00

For further particulars we beg to refer to our wholesale Catalogue, sent gratis to all who apply and inclose a stamp.

ELLWAGNER & BARRY,
Mount Hope Nurseries, Rochester, N. Y.

FARM FOR SALE.

Situated in Pontiac, Oakland county, Mich.

HAVING made permanent arrangements for going into business on the first of January next at Nashville, Tennessee, I must dispose of the farm on which I reside, at the earliest possible time. Said farm containing 165 acres of first quality land, highly cultivated, nearly free from stumps, dry, rolling land extra well watered, fair supply of timber, a soil not surpassed for wheat growing, well adapted for dairy business, having about thirty acres of well drained, low land on the back part, which produces extra large crops of corn, grass and oats. Two years ago I sold in the village of Pontiac $700 worth of hay; raised the same year thirty acres of wheat; raise annually from thirty to sixty-five acres of wheat. A large orchard of engrafted fruit, a good frame house, two wells of water, two large barns, one stable, two sheds, one log barn with shingle roof. Farm situated five miles north east of Pontiac, on the main traveled road, and half way between the villages of Pontiac and Rochester. Terms, thirty dollars per acre, $1000 down, the balance may be extended over six years in easy payments. The above terms are not absolute. There is not a farm of equal value in this vicinity that can be bought for much less than forty dollars per acre. Would prefer to sell stock and tools with farm, for further particulars address M. G. PECK,

Aug tf Pontiac, Mich.

TO AGRICULTURAL AND HORTICULTURAL SOCIETIES.

WE would particularly invite the attention of those Societies which are about to make up their PREMIUM LISTS, to our large collection of Agricultural Books, which are peculiarly adapted for premiums.

The awarding of Agricultural Books in the place of small Money Premiums has been extensively adopted, and has given the highest satisfaction.

ADVANTAGES OF THIS PLAN.

It promotes the dissemination of much needed information among farmers.

It combines the advantages of the Diploma with a premium of intrinsic value.

It substitutes a permanent and expressive token of honor for the pittance which is frequently humiliating to the recipient.

It avoids the fostering of a mercenary spirit among competitors, and better comports with the dignity of an honorable emulation between friends and neighbors.

We will be happy to furnish to applicants a Catalogue of our publications which we consider most appropriate for the use of Agricultural Societies for premiums, on which a liberal discount will be given.

C. M. SAXTON & CO.,
Agricultural Book Publishers, 140 Fulton st., N. Y.
Aug 2t.

GRAIN DRILLS, GRAIN DRILLS!

SEYMOUR'S Drills, and Broad Cut Saws, Moor's Premium Drill, Pennocks Patent Premium Drill, Wheel Cultivators, Roger's Patent, &c. H. D. EMERY, & CO.,

Aug. '56 2t 204 Lake St., Chicago Ill.

CLOVER HULLING MACHINE.

MANSFIELD'S Patent Clover Hullers. Crawfords Patent Clover Hullers. A multitude of testimonials attest the great value of the above machines. H. D. EMERY, & CO.,

Aug. '56 3t. 204 Lake St., Chicago Ill.

EMERY'S PATENT RAIL ROAD,

CHANGEABLE HORSE POWERS THRASHES, SEPARATORS, Cleaners, Saws, &c., at Manufacturer's prices, address freight, H. D. EMERY & CO.,

aug2t 204 Lake Street, Chicago, Ill.

CIDER MILLS.

EMERY'S Improved
Hickok's Improved H. D. EMERY & CO.,

aug2t 204 Lake Street, Chicago, Ill.

EGGS AND POULTRY.

THE subscriber offers for sale, on reasonable terms, EGGS and CHICKENS, from the following varieties of pure bred Fowls: COCHIN CHINAS, from the Premium Coop entered as foreign stock at the last State Fair, by G. W. Fox, of Mansfield, Ohio.

BRAMAH POOTRAS, from D. P. Newell's premium stock, of Rochester, New York. SUMATRA PHEASANT GAMES, WHITE SHANGHAES, BLACK SHANGHAES, SPECKLED DORKINGS, BLACK SPANISH, WHITE BANTAMS.

The above are all warranted pure, and of the best stock in the country. Either Eggs or Chickens, or both, will be furnished to purchasers on the most reasonable terms, and letters of inquiry addressed to me, post paid, will be promptly responded to. I live close to the railroad, and can send fowls to almost all parts of the country with the greatest safety. E. H. CASSEY,

[my '55-tf] Royal Oak, Oakland Co., Mich.

C. P. WOODRUFF & CO.,

DEALER IN

HARDWARE,

IRON, NAILS, STOVES,
TIN PLATES, SHEET IRON, CARPENTERS,'
JOINERS', COOPERS', BLACKSMITHS,'
TOOLS, HOUSE TRIMMINGS,

FARMING IMPLEMENTS.

May, '56, 6m. No. 73, Woodward Avenue, Detroit,

SALE OF FARM STOCK.

THE undersigned wishes to sell all his farm stock, of which the principal are some very good blooded breeding mares, one three year old full blooded Devon bull, gentle, and in the best breeding order; purchased of one of the first breeders of the State, at one of the Fairs in Detroit; and four kept Berkshire pigs.

Saginaw City. F. PISTORIUS.
Aug. 56. 1t.

TO INVALIDS

LABORING UNDER AFFECTIONS OF THE THROAT OR LUNGS.

DR. CALVIN M. FITCH;

Formerly of 714 Broadway, N. Y., author of the Invalid's Guide, Consumptive's Manual, &c., having recently returned from Europe, would inform his patients at the west, and all interested in the announcement, that he will open on the 1st day of July,

PERMANENT OFFICE

At No. 459 Main Street, Buffalo, N. Y.

where he may be consulted daily, (Sabbath excepted) from nine to five, for THROAT AND PULMONARY DISEASES, more particularly CONSUMPTION, ASTHMA AND CHRONIC BRONCHITIS, in the treatment of which a judicious combination of Remedial measures, the employment of Mechanical and Constitutional Remedies, and of Medicinal and Sthenothropic Inhalations, give him a degree of success which can never attend a merely partial treatment of these Affections. Dr FITCH may also be consulted for all derangements of the system preceding, or giving rise to Pulmonary Diseases, particularly CATARRH, DYSPEPSIA, COSTIVENESS, AND FEMALE COMPLAINTS. Persons wishing to consult, but unable to visit Dr. FITCH, can do so by sending him a written statement of their case. A personal examination is however always preferable, as important symptoms are sometimes overlooked by the patient; and also as constant practice in consultation enables Dr. FITCH to determine the condition of the Lungs with great accuracy; thus of course enabling him more successfully to modify and adapt treatment to individual cases.

CONSULTATIONS FREE.

Dr. C. M. FITCH has associated with himself in practice Dr. J. W. SYKES, for a long time his assistant, a gentleman in whose professional ability he has the highest confidence; and he furthermore wishes it distinctly understood that he has no longer any professional connection with Dr. S. S. Fitch, but that communications will hereafter be addressed to

CALVIN M. FITCH, M. D.,
July, '56, 1year 459 Main street, Buffalo, N. Y.

MERRILL, POWERS & CO.,

MANUFACTURERS OF

Stone Pipe for Conducting Water, Gas, Sewerage, &c.

THE above Pipe is manufactured from a superior article of Potters Clay, glazed upon the inside with an *extra superior* article of pure clay. (Which in the process of burning forms a coat of pure glass.) Is then burned so that it is harder than the hardest granite rock, will conduct water miles and discharge itself just as pure as when it leaves the spring, neither earth, water, gas, frost, or acids, of any kind have any effect upon it whatever; will stand a pressure of at least 500 feet head. It is made in joints of about 22 inches in length, with a tenon on one end, and a socket on the other; is laid in a good article of water lime cement, which becomes stone of itself after remaining in the ground say 30 days.—Below we give prices per rod at the factory.

For 1 inch calibre	$1,12½
" 1½ " "	1,25
" 1½ " "	1,50
" 2 " "	2,00
" 2½ " "	2,64
" 3 " "	3,30
" 4 " "	4,62

All orders or communications in relation to the above pipe addressed to AKRON, or MIDDLEBURY, Summit Co., Ohio, will receive prompt attention.

Middlebury, Summit Co, Ohio, Aug. 8 '55. [sept.1y]

AUCTION SALE

OF THOROUGH-BRED

DURHAM CATTLE.

I SHALL offer for sale at one o'clock P. M., on Friday, Oct. 3d, 1856, on the State Fair Grounds, Detroit, the following thorough-bred cattle. They have been bred with especial reference to their milking qualities, for many generations, by Breeders of the closest observations, and are not excelled for their fattening qualities.

PRINCE, Red, Calved April 23d, 1856.

BANNER BOY, Red Roan, Calved Sept. 1st., 1855.

HAY MAKER, Roan, Calved June 30, 1854.

SHAKER LADY, Red, Calved Oct., 1848. Winner of the first prize at Michigan State Fair, 1855. In calf to Hay Maker, May 23, 1856.

Pedigrees of the above animals will be forwarded to any address upon application.

TERMS.

Cash or satisfactory notes bearing interest, payable in the city of Detroit in three and six months from day of sale.

J. B. CRIPPEN.

Sept. 1t.

TO SHEEP BREEDERS.

FOR Sale five Rams, of the pure Cotswold Breed, from stock imported in 1853, at great expense, by Capt. Spencer Peel, selected from some of the best flocks in Glostershire, England. These Sheep took 1st Premiums at the Michigan State and Essex county Fairs, in 1854.

For price and particulars apply, post paid to

PETER MENZIES,

Sept. '56 tf Amherstburgh, C. W.

THE BEST BOOK FOR AGENTS!

TO PERSONS OUT OF EMPLOYMENT.

An Elegant Gift for a Father to present to his Family.

☞ Send for one copy, and try it among your friends. ☜

WANTED—AGENTS TO CIRCULATE

Sears' Large Type Quarto Bible,

For Family Use, entitled

The Peoples' Pictorial Domestic Bible.

This useful Book is destined, if we can form an opinion from the Notices of the press, to have an unprecidented circulation in every section of our wide-spread continent, and to form a distinct era in the sale of our works. It will, no doubt, in a few years become THE FAMILY BIBLE OF THE AMERICAN PEOPLE.

☞ The most liberal remuneration will be allowed to all persons who may be pleased to procure subscribers to the above. From 50 to 100 copies may easily be circulated and sold in each of the principal cities and towns of the Union. IT WILL BE SOLD BY SUBSCRIPTION ONLY.

☞ Application should be made at once, as the field will be soon occupied.

☞ Persons wishing to act as agents, and do a safe business, can send for a specimen copy.

☞ On receipt of the established price, six dollars, the **Pictorial Family Bible** with a well bound Subscription Book, will be carefully boxed, and forwarded per express, at our risk and expense, to any central town or village in the United States, excepting those of California, Oregon and Texas.

☞ Register your letter, and your Money will come safe.

☞ Orders respectfully solicited. For further particulars address the subscriber, post paid.

ROBERT SEARS,

Sept. 1t 181 William street, New York.

HOUSEKEEPER WANTED.

I WISH to engage a lady from forty to fifty years of age, to take charge of my house and family of five girls. A woman of moderate, yet resolute temper is desired, and one who would make the business of the house her entire interest My wife has been dead two years, and I wish to get some one to take care of my family who is a good house keeper, a good dairy woman, and one who can teach my girls to spin woo.

☞ Information desired as soon as possible.

Please state whether the woman has any children of her own, how many, &c. Address

FREEDOM MONROE,

Sept. 1t* Romeo, Macomb County, Mich.

CLOVER HULLERS & CLEANERS, different patterns.

Sept:5t D. O. & W. S. PENFIELD.

UNITED STATES

AGRICULTURAL SOCIETY

Office 160 Chestnut Street, Philadelphia.

THE Fourth Annual Exhibition of the United States Agricultural Society, will be held at Powelton, (Philadelphia,) on Tuesday, Wednesday, Thursday, Friday and Saturday, October 7th, 8th, 9th 10th, and 11th.

Premiums from twenty-five to two hundred dollars, amounting in the aggregate to fourteen thousand dollars, will be offered for the various classes of Domestic Animals, Fruits, American Wines, Vegetables, Grains, and Agricultural Implements and Machinery.

A local Committee at Philadelphia, representing the various branches of industry, has already been appointed to co-operate with the officers of the Society, in perfecting arrangements for the Exhibition. And fifteen thousand dollars have been guaranteed to meet expenses. This material aid, coupled with the excellence of the selected location, and the large amount of premiums offered, induces the expectation that the Exhibition of 1856, will be superior to any of its predecessors.

A GRAND AGRICULTURAL BANQUET,

in which ladies as well as gentlemen will participate, will take place on Friday afternoon, October 10th, when distinguished speakers will address the assemblage.

Favorable arrangements for the transportation of stock and other articles are in progress with the various Railroads, the terms of which will be given on application at the office.

The Premium List, with the Regulations and Programme of the Exhibition, will be furnished on application to Mr. John McGowan, Assistant Secretary of the United States Agricultural Society, 160 Chestnut Street, (Rooms of the Philadelphia Agricultural Society) or by addressing the Secretary, at Boston.

MARSHALL P. WILDER, President.

WILLIAM S. KING, Secretary.

September 1st, 18 6. 1t

IMPORTANT TO FARMERS.

IDE'S GRAIN DRILL.

THESE Drills have been made for years, by Smith, Tracy & Co. Wayne Co., N. Y. They are furnished to Farmers at shop prices adding transportation. They are warranted to sow wheat, barley and oats, as well as any other Drill in use, and the very best in point of durability, and should be used by every Farmer who raises over ten acres of wheat per year. We give below the opinion of Charles Baldwin, one of the largest and most successful wheat growers in Oakland county.

MR. PECK:—SIR, in answer to your inquiries respecting the utility of the Grain Drills, I would say that having used one for five years in succession I think I can reccommend them to the Farmers as being a very useful farm implement, first in a saving of full one peck of seed per acre; second, it is a saving of labor, by at least one half in putting in the seed after the ground is plowed; third, a security from injury by frost or being winter killed, as in the operation of sowing it is left in small shallow trenches leaving a small ridge of land between the rows of wheat. My plan is to drill North and South, the advantage is in the snow being retained, thereby securing the wheat against the frost in a great measure; fourth and not least, the product, in some seasons material y increased, other seasons there is but little difference. I have never accurately ascertained by measurement, the difference in quantity, as I have sown none broad cast that I could drill, but in comparing the yield of my crop with my neighbors, I find in the most unfavorable seasons for broad cast sowing a difference in favor of drilling of from 5 to 7 bushels per acre. There is another advantage in favor of drilling, I seed my land sown to wheat with clover, and have never lost in a single instance. My plan is, if sown in the chaff, to sow any time in the winter on the snow, if clean seed, early in the spring before the ground thaws much. I have used the Drill to advantage on uneven and stony land, as the arrangement is such that the teeth conform themselves to the ground and will spring sideways to admit stone of considerable size.

CHARLES BALDWIN.

They are for sale at the shop price adding transportation, at James Andrew's Furnace, Pontiac, by their Agent.

All orders will meet prompt attention. M. G. PECK.

Pontiac, Sept. 1st. tf

HICKOK'S CIDER MILL.

AN entire new, enlarged and improved machine.

Price $40. D. O. & W. S. PENFIELD.

Sept:3t

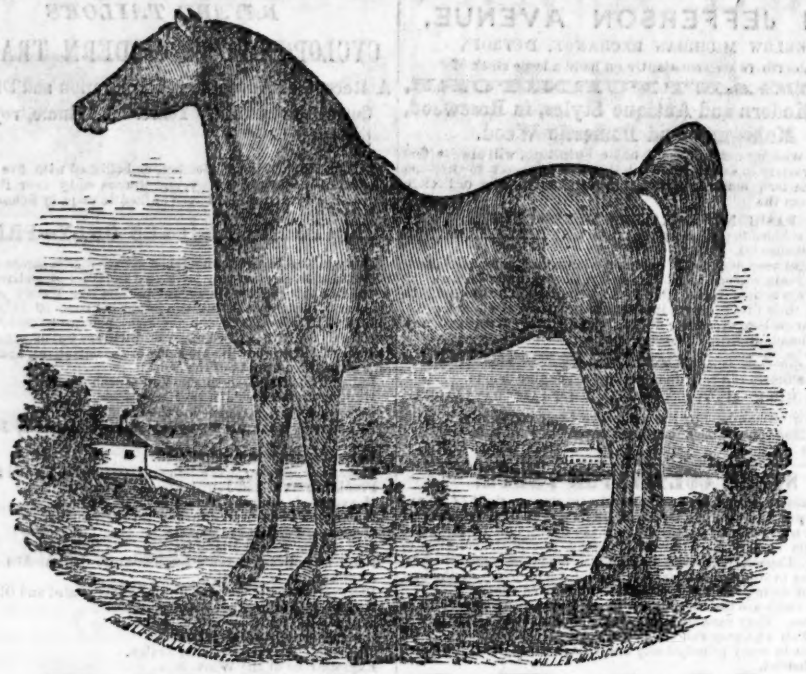
SEYMOUR'S GRAIN DRILLS and Broad Cast Sowers.

Sept:2t D. O. & W. S. PENFIELD.

KETCHUM'S Patent Mowers, at Manufacturer's prices, adding freight, at Chicago Agricultural Warehouse and Seed Store.

204 Lake st., Chicago, Ill.

THE TWO CELEBRATED MORGAN HORSES



BUSSORAH
AND
GENERAL GIFFORD, JR.

The Genuine Morgan Bussorah was sired by the justly celebrated Morgan Horse, General Gifford, which is acknowledged by all judges of horses, to be the finest Morgan horse now living. He was bred by me (Keyes Coburn) from my far famed and unequaled brood mare, Lady Howland. Her pedigree, which shows her to be thorough bred, was as follows: Lady Howland was bred by Mr. Howland, of Springport, Cayuga county, N. Y., and was sired by the Imported Arabian horse Bussorah, her dam by the old Imported Messenger. She possessed all the fire and docility of the Arabian, and the hardiness and fleetness of the thorough bred English horse. She raised for me eight horse colts, all of high metal and great value, possessing in a remarkable degree the form and gait of their respective sires. She has trotted her mile in two minutes and forty-eight seconds. General Gifford has trotted his mile inside of three minutes. (See Youatt on the horse.)

PEDIGREE OF GENERAL GIFFORD, JR.

General Gifford, Jr., was got by the Morgan Horse General Gifford, his grand sire the Gifford Morgan, g. grand sire by the Morgan horse Burbank, g. g. grand sire, by the original Morgan, owned by Justin Morgan, Vt. He was got by True Britton, he by Morton's Traveler (Imported.) Among whose ancestors are found "English Eclipse," "Childers," and the Godolphin Arabian, his dam was the celebrated Meddick Trotting mare (who trotted one hundred miles between sun and sun,) her dam by Bucyrus, he by the American Eclipse, he by the English Eclipse, he by Morton's Traveler, (Imported,) which makes her a thorough bred mare, and giving a combination of blood seldom found in one horse at this day.

CERTIFICATES.

We hereby certify the above to be a true copy of the letter received by us from the breeders of the two celebrated Morgan horses, Bussorah and General Gifford, Jr., now owned by B. J. Bidwell, of Tecumseh, Mich. Charles W. Ingersoll, David L. Kase, D. K. Evans, of Lodi, Seneca county, N. Y. Keyes Coburn, S. Y. Bowen, Springport, Cayuga, county, N. Y.

The above two horses will be for sale at $2,000 each after the fall season is over, or one half of ea[illegible]orse for $1,000 provided they remain three years in Lenawee county.

B. J. BIDWELL, Proprietor.

S. & O. '56, & M., A. & M. '57.

TECUMSEH, Michigan.